

U M E 1 4

F E B R U A R Y 1 9 5 2

N U M B E R

HB

1

072

v.14-15

1952-53

PER

Illinois U Library

COLLEGE OF COMMERCE AND  
BUSINESS ADMINISTRATION

# CURRENT ECONOMIC COMMENT

U. OF I.  
LIBRARY

I V E R S I T Y O F I L L I N O I S

CURRENT ECONOMIC COMMENT is published quarterly by the Bureau of Economic and Business Research, College of Commerce, University of Illinois. This quarterly presents factual information and interpretive comment on economic development, business operations, public policy, and related questions of current interest. It is available on request.

The opinions expressed in the articles are the personal views of the respective authors and not necessarily those of the College of Commerce or the University.

Address manuscripts and other communications to Bureau of Economic and Business Research, 205 David Kinley Hall, Urbana, Illinois.

V LEWIS BASSIE, *Director of Bureau*  
HILDA R. STICE, *Editor of Publications*

*Editorial Committee*

C. ADDISON HICKMAN, *Executive Editor*  
DWIGHT P. FLANDERS  
NUGENT WEDDING

## CONTENTS

Individual Income Taxes under the Revenue Act of 1951 . . . . .	3
CHARLES J. GAA	
The Boom in Airline Passenger Traffic . . . . .	26
WILFRED CARSEL and JESSE STERNBERGER	
Our Financial Health at the Outset of Four Wars . . . . .	31
DONALD L. KEMMERER	
Job Rotation for Unskilled Labor . . . . .	43
RUTH MINER	
Devaluation and the Dollar Gap . . . . .	48
ROLAND GIBSON	
The High Cost of Dying . . . . .	64
ROBERT I. MEHR and ALICE C. KIRKPATRICK	
Economic Aid: A Casualty of the Cold War? . . . . .	73
GEORGE KLEINER	

### Books Reviewed:

- Statistics for Economics and Business*, Paden and Lindquist
- Manpower Resources and Utilization Principles of Working Force Analysis*, Jaffe and Stewart
- The Nature and Tax Treatment of Capital Gains and Losses*, Seltzer





# Individual Income Taxes under the Revenue Act of 1951

CHARLES J. GAA

*Professor of Accountancy, University of Illinois*

IN GENERAL, the Revenue Act of 1951 increases taxes;<sup>1</sup> however, it also grants relief from hardship in several areas. New provisions affect corporate and noncorporate taxpayers, including trusts and estates. Numerous changes are made in the income tax and in excise tax rates, reducing some of the latter and increasing others. Excess profits taxes, estate taxes, and gift taxes have been changed the least, and the tax rates have not been altered at all except for ceiling rates in the excess profits tax. An attempt has also been made by Congress to close some loopholes in the law.

The date of enactment of the Rev-

<sup>1</sup> The criminal and civil penalties for substantial underestimates or failure to file Form 1040ES will not apply to taxable years starting before November 1, 1951, and ending after October 31, 1951 (which includes calendar year 1951) if the underestimate is due only to a failure to take into consideration the rate increases of the 1951 Act.

enue Act of 1951 was October 20, 1951. Rate changes for noncorporate taxpayers were effective on November 1, 1951, and for corporations, on April 1, 1951. Rates provided for the calendar year 1951 reflect rate changes effective for only part of the year. Effective dates for other provisions are varied: some apply to 1951; some apply to future years; some are retroactive to years prior to 1951.

## Tax Rates

Rates are provided for future years in much more detail than is usual. Increased rates go into effect for the 1951 calendar year and for other taxable years beginning after October 31, 1951, and prior to January 1, 1954; decreased rates are provided for taxable years beginning after December 31, 1953. The tax rate picture looks like this:

Illustration I

1950	1951	1952	1953	1954
	10-1-50	11-1-51	1951 Act (After 10-31-51; before 1-1-54)	1951 Act (After 12-31-53)
	1951 Act (Calendar 1951)			
	1950 Act (After 9-30-50)			
1950 Act (Calendar 1950)				
1948 Act				

Although the effective date for increases was November 1, 1951, a part of the increases have been applied to calendar year 1951 returns. A special tax rate table for 1951 reflects one-sixth of a year's increase, to cover November and December. This is the same plan that was followed for calendar year 1950 by the Revenue Act of 1950. Consequently, proration computations for part of a year at the old rates prior to the effective date and part of a year at the new rate after that date are not necessary for calendar year returns. Calendar years 1952 and 1953 also will require only one set of rates, because rates do not change within those years. Both will use the same rates, but these will be higher than those for 1951. The calendar year of 1954 and all other taxable years starting after December 31, 1953, will use another set of rates. These rates will be lower and will be the same rates which would have been in effect for 1951 under the Revenue Act of 1950 if the Revenue Act of 1951 had not changed them. In short, the plan of Congress was to raise rates for a little over two years and then to drop them back again to the 1950 Act level, but not back to the rates for calendar year 1950.

Returns for many fiscal years will require the use of two tax rate tables and a special proration computation. Any fiscal year which includes an effective date for a rate change will require such treatment.<sup>2</sup> It would have been possible for Congress to provide fiscal-year rate tables similar to that for the calendar year of 1951, but the large number which would have been re-

quired and the fact that few individuals are fiscal-year taxpayers made it inexpedient to prepare such tables.

Short-period returns made necessary by a change in accounting period also will require the same general treatment accorded fiscal-year returns, provided the short period includes an effective date for a rate change.<sup>3</sup>

Seven new surtax rate tables and one old one are provided to cover five general rate situations which affect noncorporate taxpayers; they and their coverage are summarized graphically in Illustration II. The normal tax remains at a flat 3 percent. The reduction factor we were familiar with in former years is no longer used.

An analysis of the five surtax tables (Illustration III) shows that the surtax rate for the first \$2,000 of surtax net income increases from 17.4 percent in calendar 1951 to 19.2 percent in the period from November 1, 1951, to December 31, 1953, and decreases to 17 percent after December 31, 1953. In the first \$2,000 bracket, the surtax is the same for all taxpayers, whether or not married, and whether or not the "head of a household." In all other brackets shown, the "head of a household" has a surtax smaller than an ordinary unmarried person or married person on a separate return, but greater than the tax of married persons on a joint return. In most of the income brackets, the "head of a household" will pay less tax in 1952 and 1953 than he would have paid in 1951 with the same income when he was regarded as an ordinary unmarried person for tax purposes.

A comparison of the three Supple-

<sup>2</sup> Explained on pp. 7 f.

<sup>3</sup> Explained on pp. 8 f.



## Coverage of the Tax Tables for Noncorporate Taxpayers

1950	1951	1952	1953	1954
	10/31/51 11/1/51		12/31/53 1/1/54	
	I. Calendar Year 1951 (Not applicable to "Head of Household")	SURTAX TABLES (Form 1040 Long) <sup>1, 2</sup>		
		II. Taxable years starting after 10/31/51 and before 1/1/54 (Excluding "Head of Household")		
		III. Taxable years starting after 10/31/51 and before 1/1/54 ("Head of Household" only)		
		IV. Tax years starting after 12/31/53 <sup>3</sup> (Excluding "Head of Household")		
		V. Tax years starting after 12/31/53 ("Head of Household" only)		
		SIMPLIFIED TAX TABLES (Normal and Surtax) (Form 1040 Short) <sup>2</sup>		
	VI. Calendar Year 1951 (Not applicable to "Head of Household")	VII. Taxable years starting after 10/31/51 and before 1/1/54 <sup>4</sup> (Applicable to all noncorporate taxpayers)		
		VIII. Tax years starting after 12/31/53 <sup>4</sup> (Applicable to all noncorporate taxpayers)		

<sup>1</sup> 1040 Long is mandatory if adjusted gross income is \$5,000 or more. These are surtax tables and do not include 3% normal tax.

<sup>2</sup> 1040 Long or 1040 Short may be used at the election of the taxpayer if adjusted gross income is under \$5,000.

<sup>3</sup> This is the only old table and is the same surtax table which was provided for use in 1951 by the Revenue Act of 1950, and it is the same old table which was used and adjusted for percentage reduction factors prior to 1951. The 1951 Act prevented the use of these rates for the calendar year of 1951.

<sup>4</sup> Each of these two tables covers all individuals without regard to marital status, because each contains columns for single persons, joint returns, and "heads of a household."

### Illustration III

#### Comparative Analysis of Surtax Tables

(NOTE: These figures do not include 3% normal tax. These figures represent only certain sample figures from the Surtax Tables. The tables contain more details.)

	TABLE I (Not applicable to Head of Household) Calendar year 1951 Sec. 101 (a) 1951 Act; Sec. 12 (b) (1) IRC		TABLE II (Not applicable to Head of Household) Taxable years beginning after 10/31/51 and before 1/1/54 (Incl. cal. years 1952 and 1953) Sec. 101 (a)—1951 Act		TABLE III (Head of Household only) Taxable years beginning after 10/31/51 and before 1/1/54 (Incl. cal. years 1952 and 1953) Sec. 301—1951 Act; Sec. 12 (c) (1) IRC		TABLE IV (Not applicable to Head of Household) Taxable years beginning after 12/31/53 (Incl. cal. year 1954) (a)—1951 Act; Sec. 12 (b) (3) IRC		TABLE V (Head of Household) Taxable years beginning after 12/31/53 (Incl. cal. year 1954) Sec. 301 (a)—1951 Act; Sec. 12 (c) (2) IRC	
	Separate	Joint <sup>1</sup>	Separate	Joint <sup>1</sup>	Separate	Joint <sup>1</sup>	Separate	Joint <sup>1</sup>	Separate	Joint <sup>1</sup>
\$ 2,000.....	\$ 348	\$ 348	\$ 384	\$ 384	\$ 384	\$ 384	\$ 340	\$ 340	\$ 340	\$ 340
6,000.....	1,216	1,084	1,336	1,200	1,272	1,272	1,180	1,060	1,120	1,120
10,000.....	2,396	1,952	2,656	2,152	2,412	2,412	2,340	1,900	2,120	2,120
26,000.....	10,156	7,032	11,216	7,772	9,492	9,492	9,960	6,880	8,440	8,440
50,000.....	25,696	19,172	27,416	21,172	24,312	24,312	25,320	18,800	22,080	22,080
100,000.....	64,796	51,392	67,216	54,832	61,012	61,012	64,320	50,640	57,480	57,480
150,000.....	107,796	88,692	110,716	93,032	102,012	102,012	107,320	87,840	97,480	97,480
200,000.....	151,296	129,592	154,716	134,432	144,512	144,512	150,820	128,640	139,480	139,480
Excess over \$200,000.....	88%	86%	89%	87%	88%	88%	88%	86%	87%	87%
250,000.....	195,296	172,592	199,216	177,932	188,512	188,512	194,820	171,640	182,980	182,980
300,000.....	239,296	215,592	243,716	221,432	232,512	232,512	238,820	214,640	266,480	266,480
Excess over \$300,000.....	88%	87—88%	89%	88—89%	89%	89%	88%	87—88%	88%	88%
Lowest rate—\$2,000.....	17.4%	17.4%	19.2%	19.2%	19.2%	19.2%	17%	17%	17%	17%
Highest rate: over \$200,000.....	88%	86%	89%	87%	88%	88%	88%	86%	87%	87%
..... over \$300,000.....	88%	87—88%	89%	88—89%	89%	89%	88%	87—88%	88%	88%
Limitation—Normal tax and surtax.....	87.2%	87.2%	88%	88%	88%	88%	87%	87%	87%	87%

<sup>1</sup> Joint return tables do not appear in the code but have been figured here by applying the regular tables to one-half of the income and then multiplying the result by two.



## Illustration IV

**Comparative Summary of Supplement T Tax Tables for Taxpayers with  
Adjusted Gross Income Below \$5,000 and Two Exemptions  
(Sec. 400, IRC; Sec. 102, 1951 Act)**

(NOTE: These figures represent only certain sample amounts taken from the much more detailed tables. They include normal tax and surtax.)

Adjusted Gross Income	Calendar Year 1951		Taxable Years Starting After 10-31-51 and Before 1-1-54 (Incl. Calendar Years 1952 and 1953)			Taxable Years Begin- ning After 12-31-53 (Incl. Calendar Year 1954)		
	<i>Separate</i>	<i>Joint</i>	<i>Separate</i>	<i>Head</i>	<i>Joint</i>	<i>Separate</i>	<i>Head</i>	<i>Joint</i>
\$1,000.....	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
2,000.....	125	125	136	136	136	122	122	122
3,000.....	311	311	338	338	338	305	305	305
4,000.....	503	494	548	543	538	493	489	485
4,999.....	694	669	758	743	728	681	668	656

ment T tax tables (Illustration IV) (for use with Form 1040 Short) shows that, except in the lower income brackets, the "head of a household" pays a tax below that on the ordinary separate return and above that on a joint return. The "head of a household" will pay slightly more in 1952 and 1953 than he did in 1951 when he was taxed at the same rates as any other unmarried person, but less than he would have paid if the category of "head of a household" had not been introduced into the law.

A surviving spouse may file a joint return with a deceased spouse if they have the same taxable year, in the same way as in the past. The rates shall be applied as if the taxable years of both spouses ended on the date of the closing of the survivor's taxable year.

### Fiscal-Year Returns

The application of tax rates for (a) any calendar year, or (b) for any fiscal year which does not overlap the effective dates for rate changes (November 1, 1951, and January 1, 1954)

is a very simple matter. However, a proration calculation is necessary for any fiscal year (a) starting prior to November 1, 1951, and ending after that date, or (b) starting prior to January 1, 1954, and ending after that date. The calendar year 1951 overlaps an effective date for a rate change but, as has already been explained, a special table has been provided to care for the matter.

The procedure in calculating tax for fiscal years which are in part subject to one set of rates and in part to another set of rates is not new; the taxpayer must:

(a) Calculate net income for the taxable period, using the rules in effect for the early part of the fiscal year before the rate change.

(b) Apply the tax rates before change to the net income calculated in (a) and multiply the result by a fraction, the numerator of which is the number of months before the change and the denominator of which is 12 months.

(c) Apply the new rates after the

## Illustration V

	1951	1952
	11/1/51	
	8/1/51	7/31/52
	3 mos.	9 mos.
Net income	\$6,600	\$6,600
Exemption	600	600
Tax net income	<u>\$6,000</u>	<u>\$6,000</u>
Normal tax (3%)	\$ 180	\$ 180
Surtax	1,180 <sup>1</sup>	1,336 <sup>2</sup>
12-month tax figures	<u>\$1,360</u>	<u>\$1,516</u>
	<u>×3/12</u>	<u>×9/12</u>
Partial tax figures	<u>\$ 340</u>	<u>\$1,137</u>
Tax liability		<u>\$1,477</u>

<sup>1</sup> This may be found in Table IV (Illustration III) for taxable years beginning after December 31, 1953, because such table is the same as that provided by the Revenue Act of 1950 for taxable years starting after September 30, 1950, and would have applied to 1951 if the 1951 Act had not been passed.

<sup>2</sup> Taken from Table II (Illustration III) for taxable years beginning after October 31, 1951, and ending before January 1, 1954.

change to the net income calculated in (a) and multiply the result by a fraction, the numerator of which is the number of months after the change and the denominator of which is 12 months.

(d) The sum of (b) and (c) is the tax for the fiscal year.

Illustration V will serve to demonstrate how the proration calculation is made. It assumes that the fiscal year starts on August 1, 1951, and ends on July 31, 1952, and that the taxpayer is single, has no dependents, and has net income of \$6,600.

A joint return calculation for a married couple is similar except that "income splitting" must be considered. A married couple with \$12,000 of taxable net income would have a tax liability of \$2,954, just twice that of a single person with \$6,000 of taxable net income.

## Short-Period Returns

Just as in the past, a special computation for short-period returns caused by a change in the accounting period must be made. The only thing new to be considered is the new rate structure of the 1951 Act. A change in accounting period of individuals most commonly occurs when two married persons with different taxable periods wish to file a joint return. At least one spouse must change, so that both spouses will have the same taxable period.

Short-period returns which overlap an effective date of a rate change are subject to substantially the same treatment as fiscal-year returns under the same circumstances. Illustration VI will serve to illustrate the calculation for a short period which overlaps a change in rates. It assumes that the taxpayer is single, with no dependents,

## Illustration VI

Fiscal Year	Short Period			Calendar Year
	9/30/51	10/31/51	12/31/51	
	1 Mo.	2 Mos.		
Short-period income	\$ 2,650			
	$\times 12/3$			
Annualized income	\$10,600			
Exemption	600			
Taxable net income	<u>\$10,000</u>			
Taxable net income	\$10,000		\$10,000	
Normal tax—3%	\$ 300		\$ 300	
Surtax	2,340 <sup>1</sup>		2,656 <sup>2</sup>	
Tax—12 months	\$ 2,640		\$ 2,956	
	$\times 3/12$		$\times 3/12$	
3-month tax figures	\$ 660		\$ 739	
	$\times 1/3$		$\times 2/3$	
	<u>\$ 220</u>		<u>\$ 492.67</u>	
Short-period tax	<u>\$712.67</u>			

<sup>1</sup> Table IV (Illustration III) furnishes the rates provided by the Revenue Act of 1950 for taxable years starting after September 30, 1950.

<sup>2</sup> Taken from Table II (Illustration III) for taxable years starting after October 31, 1951, and before January 1, 1954.

with \$2,650 of net income for the short period, and wishes to change from a fiscal year ending on September 30, 1951, to a calendar year.

### Head of a Household

Some years ago, the income tax law granted a special exemption to the "head of a household" which was greater than that allowed the ordinary unmarried individual. That provision and the concept of a "head of a household" were dropped from the law and the concept did not reappear until the Revenue Act of 1951 was passed. The concept is used now in connection with special tax rates rather than with a special exemption; it is effective for taxable years starting after October 31, 1951, and does not apply to calendar

year 1951. The benefit of lower rates may be obtained only by filing Form 1040, either the long or short version; Form 1040A will not suffice. The rates on a "head" are between those of an ordinary unmarried person or a married person on a separate return and those of a married couple on a joint return.

A "head of a household" is any unmarried person who meets certain requirements; a nonresident alien, however, does not qualify. For this purpose an "unmarried person" includes those who have never been married, those who have been separated under a decree of divorce or separate maintenance, a person who survives a decedent spouse (after the year of death), and a taxpayer who may not file a joint



return because his spouse is a nonresident alien. A taxpayer whose spouse dies in the taxable year is considered married for that year.

The person who seeks classification as the "head of a household" must meet these tests:

(a) His household includes any of the following relatives:

i. His children (including legally adopted children) and their descendants, and his stepchildren (but not their descendants).<sup>4</sup>

ii. Any other relative who qualifies as a "dependent" of the head.<sup>5</sup>

(b) He has contributed over one-half of the support of the home.

(c) He is not a nonresident alien.

The "head" does not have to include in his return the income of relatives who live in his household. This treatment is consistent with that which allows a parent to exclude from his return the income of dependents. The "head of a household" is permitted the same exemptions as other unmarried taxpayers. This means, for example, that a "dependent" could entitle the taxpayer to classification as a "head" as well as a credit of \$600 for a dependent.

The following situations will not disturb the "head of the household" status: death of a relative, temporary absences of the "head" or of a relative, absence at school during the time

school is in session, or absence due to illness. The "head" must be an occupant of the household; it is not enough that he establish and support it.

## Employees

For wages paid (regardless of when earned) during the period from November 1, 1951, through December 31, 1953, new withholding tables have been provided. If the percentage method is used instead of the tables, the withholding rate shall be 20 percent instead of 18 percent. An employer and an employee may agree on withholding more than the code requires on wages paid after October 31, 1951, but no interest will be paid on refunds of extra amounts withheld. The commissioner is to issue regulations to cover this election.

Several relief provisions have been placed in the law which are new or are an easing of old rules and are directed toward payments to employees or their beneficiaries after they separate from regular employment.

*Life insurance salesmen.* Some life insurance salesmen have now been included, retroactively for taxable years starting after December 31, 1938, in the definition of "employee" for purposes of employee trusts.

*Payments to beneficiaries of deceased employees.* Formerly almost all payments to beneficiaries of deceased employees were subject to tax in the hands of the recipients. The 1951 Act allows beneficiaries to receive, in a single sum or otherwise, a maximum of \$5,000 tax-free from each employer on behalf of an employee, but only if there is an express contract which binds the em-

<sup>4</sup> Unmarried children, their descendants, and stepchildren need not be "dependents"; however, a married child must be a "dependent" within the meaning of the law.

<sup>5</sup> This means that the head must contribute over one-half of the support of the alleged dependent and the alleged dependent may not have \$600 or more of taxable gross income.

ployer to make such payments. This provision simply extends the principle of excluding proceeds of insurance paid by reason of death and applies to amounts received in taxable years beginning after December 31, 1950. The \$5,000 limit exists regardless of the number of beneficiaries; if more than one is involved, the several beneficiaries share the exemption. More than \$5,000 may be exempted to the beneficiaries if more than one employer or more than one employee are involved. If amounts are held by the employer and interest is paid, the interest is taxable income.

*Joint and survivor annuities.* Although joint and survivor annuities are discussed here under the heading of "employees," it should be noted that nonemployee annuities of this type are given the same relief. Prior to the 1951 Act, in the case of joint and survivor annuities, the survivor and the original annuitant were required to recognize income on annuity receipts to the extent of 3 percent of the consideration paid for the annuity contract. The 1951 Act favors the survivor by allowing him to report only 3 percent of the value of the contract for estate tax purposes. The rest of the rule regarding annuities has not been altered; amounts received tax-free above the 3 percent figure are aggregated until the total consideration has been recovered tax-free; the balance received or to be received is taxable income. The consideration for this purpose to the survivor is the fair value for estate tax purposes. This provision applies if death takes place after December 31, 1950. Employee annuities under pension or profit-sharing plans, as well as

other annuities, will be affected by this provision. In noncontributory plans, the employee had no cost and all amounts received were taxable income to beneficiaries; now this rule would tax only 3 percent of the value for estate purposes and allow beneficiaries to exclude the rest until such value is recovered tax-free. Also, remember that the \$5,000 exclusion just discussed applies to joint and survivor annuities if they are employee annuities.

*Lump-sum separation withdrawal from a qualified employees trust.* The former rule required that the excess of the value of a lump-sum separation withdrawal from a qualified employees trust over the employee's contribution be treated as a long-term capital gain. The new provision is that withdrawal of an entire share in a qualified employee trust in one year, which withdrawal includes appreciated securities of the employer, is to have relief to the extent of excluding from income the amount of appreciation in value of the employer's securities so distributed. Cash, other properties, and the cost basis of the employer's securities to the trust are to be included in figuring capital gain to the employee. The employee assumes the same basis for these securities as they had in the hands of the trust; the appreciation will be taxed as a capital gain when or if the securities are disposed of. This provision is broad enough to cover securities of the parent corporation or subsidiary of the employer corporation, but it has no application if the value of the securities at the time of distribution is less than the basis to the trust. Withdrawals after December 31, 1950, are covered by this new rule.

*Lump-sum separation payments.*

Separation payments formerly were always treated as ordinary income. The 1951 Act treats lump-sum payments received in lieu of a percentage of future income as long-term capital gains if certain requirements are met, the treatment given for lump-sum withdrawals from an employee trust. Those requirements are (a) the amounts must be received pursuant to the employment contract, (b) the amounts must be received in one taxable year and after the employment has been terminated, (c) the employment period must be for a certain number of years, and (d) the contract must have been in existence for a certain period of time and provide for a share in profits for a period specified by the law. This provision applies to taxable years starting after December 31, 1950.

*Restricted stock options.* The 1950 Act allowed certain benefits in the case of restricted stock options and set up nine requirements which had to be met. One of these requirements was that at the time the option was granted the option price must be 85 percent or more of the value of the stock. Experience showed that in some cases where shareholders had to approve the grant of the option some delay occurred, and a change in the percentage prevented the provision from being used. The 1951 Act merely liberalizes the rules to the extent of allowing the percentage to be calculated without regard to a later date delayed by stockholder approvals. This provision is effective for taxable years ending after December 31, 1949.

**Businessmen**

*Family partnerships.* Now a person is considered a partner if he owns a capital interest in a partnership in which capital is a material income-producing factor. This is true even though the capital interest was purchased from or received as a gift from a member of the family. Personal service partnerships will not be affected.

However, in order to limit the abuses which might arise under these more liberal rules, there are some restrictions on the distribution of profits. They are: (a) a fair allocation of profits must be made first to the donor partner who contributes services; (b) all capital contributions must be given an equivalent share in the profits, allowing for differences between the amounts contributed, of course; and (c) the gift or sale of the partnership interest must have been real and not mere form. This change clears up some uncertainties which have existed but will set up new problems of evaluating the worth of service rendered and the reality of the transfer of the capital interest. So long as the transfer is real it satisfies these requirements even though it was made to save taxes; however, a mere sham transfer will fail. A partner's distributive share is not to be diminished because of his absence in the armed forces.

The law is not retroactive; it states:

The amendments made by this section shall be applicable with respect to taxable years beginning after December 31, 1950. The determination as to whether a person shall be recognized as a partner for income tax purposes for any taxable year beginning before January 1, 1951, shall be made as if this section had not been enacted and without inferences drawn from the fact



that this section is not expressly made applicable with respect to taxable years beginning before January 1, 1951.

*Sales of livestock held for draft, breeding, or dairy purposes.* Farmers appear to have won their long battle with the Treasury on this matter. In 1951, the Bureau softened its position but did not entirely clear up the problem. Its position was that culls which had reached their full period of usefulness were Section 117 (j) assets, and that others were not. Congress has decided that such animals are Section 117 (j) assets regardless of age or potential service life if they have been held for six months or more from the date of *acquisition*. This rule applies to taxable years beginning after December 31, 1941, and before January 1, 1951. For taxable years starting after December 31, 1950, poultry is specifically excluded and the period is raised from six to twelve months.

*Sale of unharvested crops.* Farmers have won this battle too, although there is a question as to the justification for this new and favorable rule. It has been clear that sales of farm land are subject to the benefits of Section 117 (j) of the Internal Revenue Code, if such land has been held over six months. However, there has been some conflict of opinion as to the status of unharvested crops on such land. Under the 1951 Act, where unharvested crops are sold at the same time and to the same buyer as is land which is subject to Section 117 (j), the crops are Section 117 (j) assets also. This rule applies to compulsory or involuntary conversions as well as to sales. A loss continues to be an ordinary fully deductible loss. Costs of producing

the crop are not deductions but enter into the gain or loss on sale computations under Section 117 (j). The taxpayer gets the benefit of this amendment on sales which occur in any taxable year beginning after December 31, 1950.

*Dealers in securities.* Under existing law a dealer may hold some securities for sale to customers and others as investments—gains and losses being ordinary or capital, respectively. The new law simply reduces manipulation of tax liability by restricting the chances of shifting securities from one classification to another at the convenience of the taxpayer. A sham classification will not prevent a gain from being treated as an ordinary gain. If a security has at some time been classified as an investment security it can never result in an ordinary loss for tax purposes. Losses on sales of bonds by banks continue to be treated as ordinary losses. Sales or exchanges after the thirtieth day following the enactment of the 1951 Act are subject to this amendment.

*LIFO inventory— involuntary liquidation and replacement of inventory.* Both the new and the old provisions allow the taxpayer to obtain a tax refund in the year the inventory is involuntarily liquidated if later replacements are made of the liquidated items. Under the old rules, the replacement was matched with the most recent liquidations, making it very difficult to match replacements with World War II liquidations before the time limit (taxable years ending prior to January 1, 1953) should expire. The new provision permits replacements

made prior to January 1, 1953, to be matched first against World War II liquidations before they are matched against liquidations growing out of the taxable years ending after June 30, 1950, and prior to January 1, 1954. This provision is effective for taxable years ending after June 30, 1950.

*Net operating loss deduction.* Under the old law nonbusiness deductions could be used only to offset nonbusiness income in the computation of net operating loss. The rule still applies except as to nonbusiness casualty or theft losses. This rule is effective for losses sustained after December 31, 1950, and in computing net operating loss deduction for taxable years ending after December 31, 1948.

The old law required that 100 percent of long-term capital gains and losses be taken into account in figuring the net operating loss and net operating loss deduction. Under the new law, this provision is no longer necessary, because of the change in handling long-term capital gains and losses and their inclusion in full in computing taxable net income. The rule simply states that capital losses shall not exceed capital gains and that the 50 percent deduction for the excess of net long-term capital gains over net short-term capital losses shall not be allowed. The effect of this change will be felt in (a) certain years in which the income tax loss is adjusted to become the net operating loss, and (b) certain other years to which the net operating loss is carried and adjusted to become the net operating loss deduction. The new rules apply to the net operating loss calculation for loss years beginning on

or after the enactment of the 1951 Act. For earlier years the 1951 Act does not change the calculation. The new rules apply to the net operating loss deduction computation for carry-back or carry-over years beginning on or after the date of the enactment of the 1951 Act.

All taxpayers may carry net operating losses of 1948 and 1949 over for three years, instead of two years as was true under the old provision. The year 1951 thus may be affected by losses carried forward from 1948, 1949, and 1950 and by a loss carried back from 1952. The general provision is applicable to net operating losses for any taxable year beginning after December 31, 1947, and before January 1, 1950.

*Natural resources.* In spite of talk early in 1951 about reducing liberal percentage depletion allowances, the 1951 Act has given more items the privilege of using percentage depletion. Some percentages have been increased; for example, the coal allowance has been changed from 5 percent to 10 percent. These changes are effective for taxable years starting after December 31, 1950.

Effective for taxable years starting after December 31, 1950, lessors, but not operators, of coal properties may take advantage of long-term capital gains treatment under Section 117 (j) in about the same way as has been permitted for timber royalties. Certain very important restrictions are included in the law, however.

Expenditures for (a) discovery and exploration, in part at least, and (b) development of mines may be de-

ducted when made or may be deferred and amortized over production. These amortization charges will be allowed in addition to depletion. The pertinent provisions of the law apply to taxable years ending after December 31, 1954.

*War loss recoveries.* The rules for reporting recoveries of war losses are liberalized retroactively to taxable years beginning after December 31, 1941. The statute of limitations does not prevent a refund if certain conditions are met.

*Partnership income.* Although the following comment is not derived from the Revenue Act of 1951, it does affect Form 1040 for 1951. In the third line of summary Schedule C, page 2 of Form 1040, reference is made to partnership income, and the taxpayer is directed to Form 1065, Schedule J, Column 10. The reference is inaccurate; it should be Schedule K, Column 3.

### Capital Gains and Losses

An important change<sup>6</sup> in the general treatment of long-term capital gains and losses is made effective for the calendar year of 1952 and other taxable years beginning on or after November 1, 1951. Under some circumstances the amendment will not change the taxpayer's liability for tax; under other circumstances, it may either increase or decrease the tax.

Under the new law long-term gains and losses are taken into gross income at a full 100 percent instead of at 50 percent. A new deduction is allowed

for arriving at adjusted gross income,<sup>7</sup> which is 50 percent of the excess of net long-term capital gains over net short-term capital losses. If there are no net short-term capital losses, the deduction will be 50 percent of the net long-term capital gain. If capital losses exceed capital gains, the old rule applies: namely, a maximum of \$1,000 net loss may be deducted, the balance being carried over and applied as a deduction from capital gains within the next five years. However, it must be noted that the amount of net loss may be affected by the new rules for long-term gains and losses.<sup>8</sup> The purpose of the amendment of the law is to have capital gains and losses offset each other dollar-for-dollar, regardless of the holding period of the asset disposed of. A comparison of the old and new rules is made in Illustration VII.

The foregoing change in the treatment of long-term capital gains and losses and an increase in the maximum effective tax rate from 25 percent to 26 percent have changed some details in the calculation of the alternative tax on capital gains. However, the general approach has not been altered. The rate change affects calendar year 1952 and other taxable years starting after October 31, 1951, and before November 1, 1953. Assuming that in Case (a) of Illustration VII the ordi-

<sup>7</sup> Trusts and estates must exclude from the 50 percent deduction any capital gains to be reported by income beneficiaries, otherwise there would be a double deduction from the income of the trust or estate.

<sup>8</sup> Capital loss carry-overs from years starting after October 31, 1951, are affected by the new rule; capital loss carry-overs from earlier years are computed under the old rule.

<sup>6</sup> Other less sweeping changes which affect capital gains and losses are discussed elsewhere in this analysis under several separate subject headings.



## Illustration VII

	Case (a)		Case (b)		Case (c)	
	Old	New	Old	New	Old	New
1. Ordinary income	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
2. N.L.T.C.G.	\$ 2,500	\$ 5,000			\$ 2,500	\$ 5,000
3. N.L.T.C.L.			(\$ 2,500)	(\$ 5,000)	.....	.....
4. N.S.T.C.G.	\$ 1,000	\$ 1,000				
5. N.S.T.C.L.	.....	.....	(\$ 1,000)	(\$ 1,000)	(\$ 1,000)	(\$ 1,000)
6. Net (2 through 5)	\$ 3,500	\$ 6,000	(\$ 3,500)	(\$ 6,000)	\$ 1,500	\$ 4,000
7. Taxable capital gain	\$ 3,500	\$ 6,000			\$ 1,500	\$ 4,000
8. Deductible capital loss	.....	.....	(\$ 1,000)	(\$ 1,000)	.....	.....
9. Total gross income	\$13,500	\$16,000	\$ 9,000	\$ 9,000	\$11,500	\$14,000
10. Sec. 23(ee) Deduction	.....	(\$ 2,500)	.....	.....	.....	(\$ 2,000)
11. Net income	\$13,500	\$13,500	\$ 9,000	\$ 9,000	\$11,500	\$12,000
12. Loss carry-over (6-8)	.....	.....	(\$ 2,500)	(\$ 5,000)	.....	.....

	Case (d)		Case (e)		Case (f)	
	Old	New	Old	New	Old	New
1. Ordinary income	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
2. N.L.T.C.G.	\$ 500	\$ 1,000				
3. N.L.T.C.L.	.....	.....	(\$ 2,500)	(\$ 5,000)	(\$ 500)	(\$ 1,000)
4. N.S.T.C.G.			\$ 1,000	\$ 1,000	\$ 5,000	\$ 5,000
5. N.S.T.C.L.	(\$ 5,000)	(\$ 5,000)	.....	.....	.....	.....
6. Net (2 through 5)	(\$ 4,500)	(\$ 4,000)	(\$ 1,500)	(\$ 4,000)	\$ 4,500	\$ 4,000
7. Taxable capital gain					\$ 4,500	\$ 4,000
8. Deductible capital loss	(\$ 1,000)	(\$ 1,000)	(\$ 1,000)	(\$ 1,000)	.....	.....
9. Total gross income	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$14,500	\$14,000
10. Sec. 23(ee) Deduction	.....	.....	.....	.....	.....	.....
11. Net income	\$ 9,000	\$ 9,000	\$ 9,000	\$ 9,000	\$14,500	\$14,000
12. Loss carry-over (6-8)	(\$ 3,500)	(\$ 3,000)	(\$ 500)	(\$ 3,000)	.....	.....

This illustration covers the following combinations of capital gains and losses:

- a net long-term capital gain and a net short-term capital gain.
- a net long-term capital loss and a net short-term capital loss.
- an excess of net long-term capital gain over net short-term capital loss.
- an excess of net short-term capital loss over net long-term capital gain.
- an excess of net long-term capital loss over net short-term capital gain.
- an excess of net short-term capital gain over net long-term capital loss.

nary taxable net income was \$26,500, the taxable net income would have been \$30,000, an amount sufficiently large to justify the use of the alternative tax computation. The regular and alternative taxes for separate and joint returns under the new and old rules are shown in Illustration VIII.

### Homeowners

Prior to the 1951 Act, the individual taxpayer was required to pay a tax on a gain on the sale or exchange of his residence, even though he acquired an-

other immediately. The 1951 Act has furnished some much-needed relief from this hardship situation. It borrows the idea used in tax-free exchanges of like property used in trade or business; for a long time, gains in such transactions have been tax-free. Actually, this 1951 Act provision for residences goes even further and postpones gains on sales, as well as gains on exchanges. This section, effective for taxable years starting after December 31, 1950, if the old residence is sold after that date, gives the taxpayer no election; post-

## Illustration VIII

## 1951 (Old Rule)

	Separate Return		Joint Return	
	<i>Regular</i>	<i>Alternative</i>	<i>Regular</i>	<i>Alternative</i>
1. Tax net income ( $\frac{1}{2}$ on joint return)	\$30,000	\$30,000	\$15,000	\$15,000
2. Excess of NLTCG over NSTCL	.....	2,500	.....	1,250
3. Balance	<u>\$30,000</u>	<u>\$27,500</u>	<u>\$15,000</u>	<u>\$13,750</u>
4. Partial tax (1951 rates)	\$13,456	\$11,881	\$ 4,816	\$ 4,228.50
5. 50% of "excess" ( $\frac{1}{2}$ on joint return)	.....	1,250	.....	625.00
6. Total tax—1 person	<u>\$13,456</u>	<u>\$13,131</u>	<u>\$ 4,816</u>	<u>\$ 4,853.50</u>
7. Joint return ( $2 \times (6)$ )			<u>9,632</u>	<u>9,707</u>
8. Saving (or excess over regular)		<u>\$325</u>		<u>(\$75)</u>

Calendar Year 1952 and Other Taxable Years Starting After 10/31/51  
and Before 11/1/53 (New Rule)

	Separate Return		Joint Return	
	<i>Regular</i>	<i>Alternative</i>	<i>Regular</i>	<i>Alternative</i>
1. Tax net income ( $\frac{1}{2}$ on joint return)	\$30,000	\$30,000	\$15,000	\$15,000
2. Excess of NLTCG over NSTCL	.....	5,000	.....	2,500
3. Deduction (50% of "excess")	.....	(2,500)	.....	(1,250)
4. Balance	<u>\$30,000</u>	<u>\$27,500</u>	<u>\$15,000</u>	<u>\$13,750</u>
5. Partial tax (new rates)	\$14,676	\$13,001	\$ 5,286	\$ 4,636
6. 26% of "excess" ( $\frac{1}{2}$ on joint return)	.....	1,300 <sup>1</sup>	.....	650
7. Total tax—1 person	<u>\$14,676</u>	<u>\$14,301</u>	<u>\$ 5,286</u>	<u>\$ 5,286</u>
8. Joint return ( $2 \times (6)$ )			<u>\$10,572</u>	<u>\$10,572</u>
9. Saving		<u>\$375</u>		<u>\$0</u>

<sup>1</sup> 26% of the excess of net long-term capital gain over net short-term capital loss (in this case, 26% of (\$5,000-0)).

ponement of tax on the gain is mandatory if the requirements of the law are met.

Several general rules may be stated which apply to this relief provision:

(a) The old and the new properties must be the taxpayer's "principal residence." The determination of use of property as a principal residence is a matter of fact. It does not include property held for the production of income. A house converted to income

production is not a "residence" and a taxable gain results if it is sold or a tax-free gain, under another section of the old law, if exchanged.<sup>9</sup> The mere fact that property has been rented out temporarily does not necessarily require that the gain be recognized. If the taxpayer purchases a new residence before selling the old, temporary

<sup>9</sup> This is a widely used misnomer. Usually the gain is merely postponed and is not entirely forgiven for tax purposes.

rental out of the new before he vacates the old will not prevent this subsection from being applied, provided he occupies it within twelve months of the sale of the old. If either the new or the old property is being used partly as a residence (and partly for the production of income), the selling price and gain on the old and the cost of reinvestment in the new must be allocated. A principal residence may be a boat or a trailer. It includes stock held by a tenant in a cooperative apartment corporation if he occupies the apartment which is his as a stockholder. Property used as a principal residence does not include personal property items which are not in the nature of fixtures.

(b) No gain is recognized if the entire proceeds from sale are used for acquiring a new residence within a certain period.

(c) If the entire proceeds are not suitably reinvested, the gain is recognized up to the amount of the unreinvested proceeds.

(d) "Sales" includes sale, exchange, involuntary conversion, requisition, and condemnation. "Selling price" includes the gross price of the property. The amount of mortgage or trust deed or other indebtedness to which the property is subject is not deducted, whether or not the purchaser assumes the debt. Commissions and selling expenses of the seller do not reduce the selling price, although they are taken into consideration in figuring gain or loss on the sale. "Selling price" includes amounts received on exchange or conversion of property.

(e) "Purchase" includes construc-

tion or a reconstruction beyond a mere improvement. "Purchase cost" is the gross price of the property, including (a) debts to which the property is subject, whether or not assumed by the purchaser; (b) the face amount of liabilities of the purchaser given as part of the consideration; and (c) commissions and other purchasing costs. In exchanges or conversions, the fair market value of the new property is deemed to be its purchase cost. Any part of a new residence received as a gift or inheritance has no "purchase cost," except to the extent that money is spent in reconstructing it.<sup>10</sup> If the new residence is constructed, cost includes capital items properly charged to cost within a period of one year before and eighteen months after the sale. One year before and twelve months after the sale is the period for reconstruction costs.

(f) The new residence may be purchased either before or after the old one is disposed of. The allowable period for purchase begins one year before the sale and ends one year after the sale. Construction must be started within one year of the sale and the house occupied within eighteen months after the sale; for reconstruction, the period is one year before and twelve months after sale. A purchase of a new residence before December 31, 1950, or in a taxable year ending prior to January 1, 1951, is not barred from consideration. The time rules may be summarized, as follows:

<sup>10</sup> However, the basis of such new property for computing gain or loss on its disposition also includes the basis derived under the usual rules for property received as a gift or at the death of the donor.

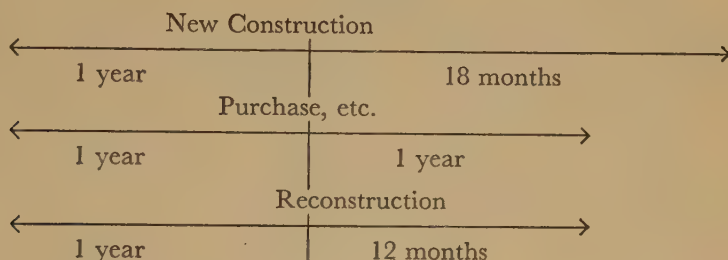


12/31/50

Purchase may be before or after this date

Sale must be after this date

Sale Date

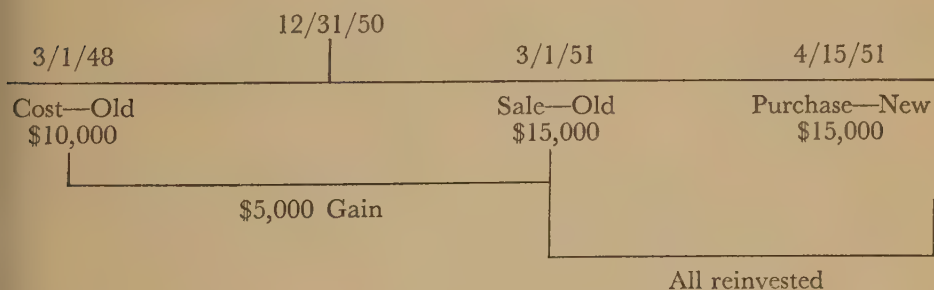


(g) The adjusted basis of the new residence is reduced to the extent of gain not recognized on the sale of the old residence.

(h) In determining the holding period of a new residence which caused gain on the disposition of the old to go unrecognized, the holding period of the old shall be included.

(i) Loss rules have not been changed by the Revenue Act of 1951. No loss is recognized on a sale or exchange of property held for personal use. Casualty losses are allowable, of course, as in the past.

One general situation given relief is illustrated at this point.



The gain of \$5,000 on the sale on March 1, 1951, is not recognized, because the entire amount was reinvested through purchase of a new house within a year of the sale. The sale qualified since it took place after December 31, 1950. The new property has a basis of cost (\$15,000) less unrecognized gain (\$5,000), or \$10,000. In other words, the new property has the basis of the

old. The new property is deemed to have been held since March 1, 1948.<sup>11</sup>

If the new property were purchased on April 15 for \$13,000, the rules would work out in the following way: The gain on March 1, 1951, was \$5,000; the unreinvested amount was

<sup>11</sup> Since such property is a capital asset, the capital-gains rules are applied to the gain recognized, if any.

\$2,000 (\$15,000—\$13,000), and the gain was recognized to that extent. The basis of the new property is \$12,000 (cost \$15,000 less unrecognized gain \$3,000), and its holding period started on March 1, 1948.

Congress was aware of the possibility of speculation in residences and indi-

cated that such loopholes were to be plugged, as follows:

(a) If the taxpayer purchases and disposes of a new residence prior to the date of sale of the old residence, such new residence will not qualify for the purpose of postponing tax on gain from the sale of the old residence.

1/10/51	3/31/51	6/1/51
Purchase—New \$12,000	Sale—New \$14,000	Sale—Old \$15,000
		Cost 10,000
		<u>\$5,000</u> Gain recognized
<p>\$2,000 Recognized gain (\$14,000—\$12,000)</p>		

(b) If the taxpayer, within the allowed period, purchases more than one property which is used by him as his principal residence during the year

succeeding the sale of the old residence, only the last is considered a new residence for the purpose of this section of the law.

1/15/51	2/15/51	3/15/51	4/15/51
Cost Old \$10,000	Sells Old \$15,000	Purchases New #1 \$12,000	Sells New #1 \$14,000
			Purchases New #2 \$13,000
<p>Recognized gain \$2,000</p>			
<p>\$5,000 gain—recognized to the extent of proceeds not reinvested in the new residence . . . . .</p>			<p>15,000 <u>2,000</u></p>

The basis for residence #2 is \$10,000 [\$13,000—(5,000—2,000)].

(c) If the taxpayer's new residence is destroyed, stolen, seized, requisitioned, condemned, or sold or exchanged under the threat or imminence of requisition or condemnation within the year after the sale of the old residence, such year is deemed to end on the date of the destruction, etc.; that is, the general rule applies be-

cause intent to reduce taxes is not present.

The reasonableness and accuracy of these rules may be tested by assuming residence #2 in Case (c) was sold later, say for \$20,000, and by comparing the results under the new rules and the results which would follow without them.

1/15/51		2/15/51		3/15/51		4/15/51	
Cost Old	Sells Old	Purchases New	New # 1	Destruction New	New # 1	Purchases New	New # 2
\$10,000	\$15,000	\$12,000		\$14,000		\$13,000	
		>15,000		>10,000		>14,000	
\$5,000 gain		\$ 3,000 recog- nized		\$ 4,000 gain		\$ 1,000 recog- nized	

The basis of New # 1 was \$10,000 [\$12,000 - (\$5,000 - \$3,000)].

The basis of New # 2 is \$10,000 [\$13,000 - (\$4,000 - \$1,000)].

Regulations will be issued by the Bureau to give spouses the option of using this provision even though (a) the old residence is sold by one spouse and the new is purchased by

the other, or (b) there was joint ownership of the old residence and of the new residence but the proportionate interests changed.

<i>Residences</i>	<i>Selling Prices and Insurance Recoveries</i>	<i>Purchase Prices</i>
Old.....	\$15,000	\$10,000
New # 1.....	14,000	12,000
New # 2.....	20,000	13,000
Total selling prices.....	\$49,000	
Total purchase prices.....	35,000	\$35,000
Aggregate gain.....	\$14,000	

The results under the Senate Finance Committee rules are the same:

Recognized on 1/15/51 Sale.....	\$ 3,000
Recognized on 3/15/51 Destruction.....	1,000
Recognized on sale of New # 2.....	10,000
Aggregate gain.....	\$14,000

Whenever the taxpayer sells his principal residence at a gain he must report to the Bureau (a) the cost of

the new residence which is involved in a nonrecognition of gain situation, or (b) his intention not to acquire a new

### Illustration IX

	Old Residence			New Residence			Recognized Gain
	Sale Price	Basis	Owner	Owner	Cost	Basis	
Case 1	\$10,000	\$5,000	Husband	Husband Wife	\$5,000 5,000	\$2,500 2,500	None
Case 2	10,000	2,500 2,500	Husband Wife	Wife	10,000	5,000	None



residence within the limited time. The statutory period of three years for assessing a deficiency on a residence transaction will not start to run until such notice is received by the Bureau. Such notice gives the Treasury an opportunity to assess additional taxes if the gain fails to qualify for non-recognition.

### Investors

*Gains on sales of certain property directly or indirectly between spouses or between an individual and a controlled corporation.* This subsection denies capital-gains treatment to sales of property subject to depreciation (not depletion) in the hands of a transferee if the parties are spouses or an individual and a controlled corporation. A controlled corporation is one in which over 80 percent of the value of outstanding stock is owned by the taxpayer, his spouse, minor children, and minor grandchildren. Years ending after April 30, 1951, and only with respect to sales or exchanges made after May 3, 1951, are affected. This provision prevents the transferee from getting the advantage of a stepped-up depreciation basis while the transferor recognizes less than the same amount as a taxable gain.<sup>8</sup>

Assume that one of the parties owns a building with an adjusted basis of \$10,000 and that the building is sold to the closely related party for \$15,000. Prior to the new provision, the seller had a capital gain of \$5,000, one-half of which was subject to tax if the property were held sufficiently long, and the maximum tax rate on which was 25 percent. The seller would be

subject to a maximum tax of \$1,250, while the buyer received property whose basis for depreciation was stepped up \$5,000. The new provision requires the transferor to report ordinary gain of \$5,000.

*Recognition of gain in certain corporation liquidations.* The 1951 Act merely extends the existing provisions for one more year. Stockholders of a corporation which distributes property in liquidation, pursuant to a plan adopted after December 31, 1950, if the distribution is in complete cancellation or redemption of all stock, and if the transfer of all property under the liquidation occurs within one calendar month in 1951 or 1952, may elect to postpone taxation of the gain to the extent that it is attributable to appreciation in value of assets while they are owned by the liquidating corporation. The property will have the same basis in the hands of the stockholder as his investment in the corporation. He will realize his gain when he disposes of the property. This provision is in effect for taxable years ending after December 31, 1951.

*Redemption of corporation stock to pay death taxes.* Both the old and the new rules allow stock in a decedent's estate to be redeemed to pay death taxes and to allow the profit to be considered capital gain rather than an ordinary taxable dividend. The change in the law extends only to a change in the percentage which the stock for estate tax purposes must bear to the value of the estate of the decedent. The 1951 Act changes the amount from 50 percent of the net estate to 35 percent of

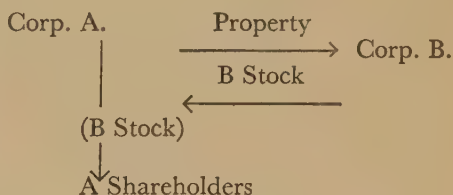
the gross estate. This provision is applicable to taxable years ending on or after the enactment date of the 1951 Act, and then only to amounts distributed on or after that date.

***Collapsible corporations.*** The 1950 Act restricted the use of collapsible corporations in the area of manufacture, construction, or production of property. The 1951 Act specifically extends this restrictive treatment to situations of appreciated inventory. The old loopholes permitted a taxpayer to change an ordinary income from appreciated inventory or from operations into a capital gain on shares of corporation stock. The 1950 Act and now the 1951 Act, in an additional area, treat the gain as ordinary gain rather than capital gain. Ordinary corporation liquidations are still excepted from this restriction by the provisions of Section 117 (m) (3). Taxable years ending after August 31, 1951, and gains on the sale of stock realized after that date are covered by the new subsection.

***"Spin-off" reorganizations.*** Stockholders may receive tax-free the stock of a corporation organized to take over property of a corporation of which they are shareholders. In the past this was handled as an ordinary taxable dividend to the extent of the fair value of such shares received, if the shareholders surrendered none of their shares. Now the basis of the shares received and the shares originally held in the corporation which distributed the second corporation's shares is, in total, the basis of the original shares. The basis must then be prorated as is done now in the case of a tax-free dividend.

The benefits of this subsection will not be available, however, if any corporation a party to the reorganization is not intended to continue active operations in trade or business or if the corporation whose shares are distributed was intended principally as a device for distributing earnings and profits of any corporation a party to the reorganization. The amendments made by this section shall be applicable with respect to taxable years ending after the date of the enactment of this Act, but shall apply only with respect to distributions of stock made after such date.

The following illustration describes a "spin-off" reorganization:



This differs from a "split-off" because the A shareholders surrender no A Corporation shares. According to some decisions, "split-offs" did not result in taxable income to the shareholders under the old law. However, the "spin-off" illustrated above did result in taxable income to the shareholders under the old law but does not under the 1951 Act.

It also differs from a "split-up," in which a corporation (a) exchanges all of its assets for shares of two or more corporations, (b) distributes the shares to its own shareholders in exchange for its own shares, and (c) then dissolves. "Split-offs" and "split-ups" are

similar and are distinguished by surrender of shares by the shareholders.

This new provision is applicable to taxable years ending after the enactment of the 1951 Act and is limited to distributions of shares made after that date.

### Miscellaneous Relief Provisions

*United States citizens residents of or present in a foreign country or countries.* Two important changes are made. First, a bona fide foreign resident may exclude earned income from foreign sources (but not amounts received from the United States or its agencies) for the time subsequent to the date when he becomes a foreign resident, provided he is a bona fide resident of a foreign country or countries for an uninterrupted period which includes an entire taxable year. Formerly, he had to be a foreign resident for an entire year to obtain the exclusion. Second, an entirely new exclusion is provided for. A United States citizen who is not a bona fide resident of a foreign country or countries may take advantage of the same exclusion already discussed if he is present physically in a foreign country or countries for a total of at least 510 full days during a period of 18 months or more. If he qualifies, he may exclude his earned income from foreign sources for such 18-month period and file a claim for a refund.

Deductions related to such excluded income may not be taken. On exempt wages paid after December 31, 1951, there shall be no withholding of taxes. Also there shall be no withholding of United States tax if wages (other than those paid by the United States or one

of its agencies) have been subjected to foreign withholding taxes. The extension of this exclusion is effective for taxable years beginning after December 31, 1950.

*Exemption for dependent.* The rules have not changed except that the claimed dependent may have up to \$600 of taxable gross income, instead of up to \$500, and still qualify as a dependent. The change applies to taxable years starting after December 31, 1950.

*Election to change to joint return.* Married taxpayers may change their election from separate returns to a joint return (but not in the other direction) any time prior to the expiration of the statute of limitations. This privilege is hedged around by several detailed restrictions. The old rule was that such an election was irrevocable for the taxable year. This change is available for taxable years beginning after December 31, 1950.

*Change in election to use the standard deduction.* Under the old law a decision as to using or not using the standard deduction was irrevocable after the due date for filing the return. The new law allows the taxpayer to change his election in either direction at any time before the statute of limitations has expired. Of course, since in separate returns married persons must both use the standard deduction or refrain from using it, a change in election by one spouse requires a change by the other also. This is a relief provision, because formerly a taxpayer (a) who used actual deductions because they exceeded the standard de-



duction could not change to the standard deduction if the Bureau reduced his actual deductions below the standard amount, and (b) a taxpayer who used the standard deduction and subsequently discovered additional actual deductions could not switch to the use of actual deductions. This revision applies to taxable years starting after December 31, 1949.

*Medical expense deduction.* For taxable years beginning after December 31, 1950, if the taxpayer or his spouse is 65 years of age or over before the close of the taxable year, the medical expenses of the taxpayer and his spouse are allowed without disallowing an amount equal to 5 percent of adjusted gross income. If neither the taxpayer nor his spouse is as old as 65 years of age, the old rule still applies. Under both the new and old rules, medical expenses for dependents are still subject to the 5 percent disallowance. The maximum limitations still apply: they are \$1,250 per exemption in the return, but not over \$2,500 in a separate return and \$5,000 in a joint return.

*Exclusion of combat pay.* The exclusion is extended two years to cover services performed in combat zones from June 25, 1950, to December 31, 1953, inclusive. It covers pay for any month if any part thereof was spent in any hospital as a result of services in a combat zone, providing that in all of such a month there were combat activities in some combat zone. Withholding-tax provisions are modified to reflect this exemption. Wages paid after November 1, 1951, are affected for withholding purposes; the exemption shall

be effective for taxable years ending after June 24, 1950. There is a limit on the exemption in the case of commissioned personnel.

*Abatement of tax for certain irrevocable trusts.* This section removes from taxation certain income accumulated to an irrevocable trust on behalf of a beneficiary who died while in active service on or after December 7, 1941, and before January 1, 1948.

*Forgiveness of tax—death in combat zone.* If death occurred after June 24, 1950, and before January 1, 1954, in a combat zone or from injuries received in a combat zone, tax is forgiven for the year of death and any prior taxable years ending on or after the first day the decedent was serving in a combat zone after June 24, 1950. Also all other income taxes for any other year remaining unpaid at the date of death are forgiven.

Taxpayers who may groan under the weight of new taxes can gain some comfort from the fact that the new law seeks to reduce loss of revenue from nonreported interest. Congress gave the Secretary of the Treasury power to require information returns for interest paid, regardless of the amount. He may require them of any taxpayer who has paid such interest, regardless of the type of obligation for which the interest is paid. Constructive as well as actual payments may be covered. The old rule required information returns on payments of \$600 or more. It is interesting to note also that Congress removed the tax exemption from expense allowances of the President, the Vice President, the Speaker of the House, and members of Congress.

# The Boom in Airline Passenger Traffic

WILFRED CARSEL, *Chief, Research and Analysis Branch*  
and

JESSE STERNBERGER, *Transportation Economist*  
*Office of Airports, Civil Aeronautics Administration*

THE AIRLINE passenger business is one of the most booming areas in the economy, and this growth will probably continue for most if not all of this decade. During the year 1960 we should have about 40 million passengers riding the airlines, or about  $2\frac{1}{2}$  times the number in 1950.

## Solid Bases for Air Traffic Growth

In a previous article in the *Illinois Business Review* ("Aviation Is Growing Up," August, 1951 issue), we described the solid bases, established jointly by the airline industry and the governmental aviation agencies, for the growth of airline traffic. During the last three and a half years the airlines widened their market area considerably. Route miles served by domestic airlines increased by 15 percent. The number of communities served jumped 49 percent. The number of aircraft in service was increased from 878 to 1,010, or 15 percent; and the increase in available seat miles, caused by changes in the composition of the air fleet, increased by 47 percent. New lower-fare services were developed, particularly the air-coach operation, which began to tap the lower-income travel market. Air travel became safer and more reliable owing to better equipment, improved airports, and installation of navigational aids.

As a result of these developments in facilities and services, air passenger

volume, after being relatively stable between 1946 and 1948, registered gains of 15 percent annually during 1949 and 1950. Even before the Korean explosion and the advent of the mobilization program, it was clear that previous forecasts used for planning by the civil aviation agencies were extremely conservative and would have to be revised upward considerably.

## Previous CAA Forecast of 1955 Air Passenger Traffic

The principal forecast of airline passenger traffic in use until recently has been that of 20 million air passengers for the year 1955. This forecast, made by the Civil Aeronautics Administration (CAA) in 1945, envisaged a quintupling of air traffic during the decade 1946-1955 and was regarded by many as rather optimistic, to say the least. However, so rapidly has airline passenger travel grown that the forecast began to appear low even before the Korean development. There were a number of reasons for this, among them:

1. It underestimated the national income in postwar years. It assumed a reasonably full employment economy with a national income ranging between \$135 and \$188 billion. The postwar annual national income has been considerably in excess of the top of this range.

2. It did not anticipate extensive development of the feeder routes, which in 1951 accounted for over 1½ million passengers.

Moreover, this forecast stated specifically that "On the whole, the CAA feels that its predictions of air carrier operations expansion are so conservative that they may well be realized in 5 or 6 years, instead of 10."

### **Estimated Airline Passengers During 1951**

Obviously, the 1945 forecast also assumed a peacetime economy. The transition to a defense economy has in consequence drastically altered the position of airline passenger travel. The impact of the mobilization program began to be felt in December, 1950, when the number of airline passengers increased 45 percent over the previous December. During the first half of 1951 the air passenger traffic increased 37 percent over the same period in 1950. This rate of increase was slowed down somewhat during the second half of the year because of equipment shortages along many of the principal airline route segments, but this period witnessed the highest monthly air passenger traffic ever attained in the United States. Thus the total number of airline passengers for the year 1951 approximated 23 million, about 32 percent over 1950, and about 15 percent more than the 20 million previously forecasted for 1955!

### **Improvements in Facilities, Services, and Equipment During the Fifties**

Our evaluations of air transportation performance and potential in various

communities throughout the United States have shown that only a portion of the potential airline passenger traffic has been tapped in previous years. The tremendous growth in airline traffic during the years 1948 to 1951 came about despite such deterrents in many communities as indirect connections, lack of connections to important centers, infrequent or inopportune schedules, and multiple enroute stopovers. The ensuing decade will witness consolidations and mergers of airlines and a strengthening as well as an expansion of the route networks. Travel time between many points will be cut by faster equipment and more direct travel lanes. Schedules will probably be more frequent and better geared timewise to potential traffic.

A greater proportion of the traffic potential will become effectuated in a number of communities by improvement of airport facilities, such as locating airports closer to the centers of population in the service area, reducing ground time between the center of the city and the airport, providing airports adequate for airline service at smaller certificated stations, and installing more and newer navigational aids. The number of air passengers should also be augmented by an increase in the number of operating stations (including activating most of the present 135 certificated but nonoperating stops, which include more than 20 percent of all certificated stations at the present time).

Services now in process of development should have an appreciable effect on air travel growth in the next decade. The low-fare air-coach service



should boom during this period. Up to the present the infant air-coach service has been on an experimental basis and has been limited to selected routes, serving only 33 cities, and to off-hour or night-time operations. With the Civil Aeronautics Board now urging more extensive coach service development, the carriers may be expected both to widen the area served by air coach and to introduce a considerable number of daytime air-coach schedules. Moreover, it is expected that air-coach rates will generally go below four cents a passenger mile, or less than first-class railroad rates. Similarly, the air taxi operators' service now in process of organization will supplement scheduled airline service between certificated points and will furnish air transportation facilities to non-certificated points.

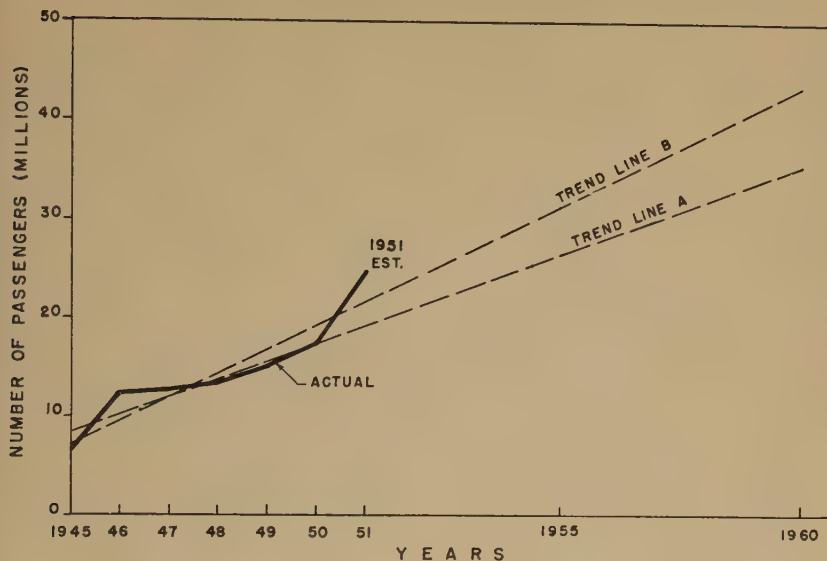
Changes in the character of the airline fleet, noted previously, are being accelerated by present developments in military and civil aviation. The trunk carriers are continuing to shift from 2-engine to 4-engine equipment, supplemented by more modern twin-engine aircraft with greater speed and seating capacity. Jet and turbo-prop transportation will probably be introduced before the end of the decade. Should the helicopter, which has been developed to such a point that its use in commercial air passenger travel is apparently on the verge of realization, fulfill expectations even partially, the short-range travel market will be tapped for the first time by air transportation. The impact of the helicopter will probably be felt most strongly along short route segments between major cities in densely populated areas. For example, such cities along the At-

lantic coast as Philadelphia and Baltimore, which are too close to other large centers of population to generate high per capita passenger traffic under present vehicle and landing area conditions, would experience a sharp rise in air passenger traffic with the inauguration of real short-haul air passenger service. More immediately, helicopter service is already being definitely planned for intracity travel in a number of large metropolitan areas, the latest development being five-year authorizations by the Civil Aeronautics Board to Los Angeles Airways, Inc., and to New York Airways, Inc., to conduct such service in the Los Angeles and New York metropolitan areas, respectively.

#### Estimate of Airline Passengers During 1960

In addition to the improvements in facilities, equipment, and services on the horizon, air transportation will benefit from the probable developments in the national economy during this decade. It must be borne in mind that the American economy was in a state of healthy expansion before Korea and the beginning of the present defense program. Unlike the situation ten years ago, the present defense program is being superimposed upon an economy already in high gear. National policies are being formulated and carried out in terms of an economy which would be capable of sustaining both preparedness for defense and production of sufficient goods for the civilian market. According to the Office of Defense Mobilization and the Council of Economic Advisers, the defense program should attain the desired level by

## GROWTH TRENDS OF AIRLINE PASSENGERS



CAA OFFICE OF AIRPORTS  
AIRPORT PLANNING DIVISION

mid-1955. Expansion of production of civilian goods after the middle of the decade will insure a further growth in the economy for the ensuing three or four years. It is estimated that the national income (in terms of prices for the last quarter of 1950) will increase to about \$375 billion by 1955 and, at a slower rate of growth thereafter, to approximately \$400 billion by 1960. According to the Bureau of the Census, the population of the United States will increase during the decade to at least 168,933,000, a numerical increase of approximately 18,200,000 over 1950.

Historically, intercity passenger travel has been doubling every 20 to 25 years. Between 1929 and 1949, for example, intercity passenger travel (including travel by rail, bus, and automobile) increased by 93 percent. Intercity passenger miles for trips over 50 miles in-

creased by 85 percent during this period. This has been at a rate considerably faster than population growth (23 percent from 1929 to 1949) and somewhat above the increase in real national income (83.7 percent). This trend is of long-time duration and there is no reason to assume that it will change. On the contrary, the increasing unification and integration of the national economy and the increasing mutuality of social, family, cultural, and recreational interests among the various sections of the country assure a continuation of this trend.

Air passenger traffic has of course become an increasing portion of total intercity traffic; its share has gone up four to five times during the past six years. What is more important is that at the present time airline passenger miles still constitute only about 2.2 per-

cent of all intercity passenger miles and only about 4.4 percent of intercity passenger miles for trips longer than 50 miles. Thus there is no lack of room for expansion of air travel. We can expect, at the least, that airline penetration into the total intercity travel market will increase by 50 percent during this decade, or to 6.6 percent of the total trips longer than 50 miles.

The discussion indicates that air travel should continue to increase at least at the rate prevailing between 1945 and 1951. The accompanying chart shows two estimates. Trend Line A is a projection based on the rate of growth between 1946 and 1950, which may be called peacetime years. This base eliminates the spectacular growth during 1951. Even if only this rate of growth is maintained there should be approximately 35,400,000 airline passengers during 1960. The projection in Trend Line B is based on the inclusion of the air passenger traffic during the year 1951. If the rate between 1945 and 1951 is maintained, we should have approximately 43,000,000 passengers during 1960.

Should the defense program shift into lower gear and the economy fail to reach present anticipations by 1960, the growth pattern in airline passenger traffic will tend to shift from one resembling that in line B to one resembling that in line A. The resulting

figure should be approximately 40,000,000 airline passengers.

We believe that the estimate of 40,000,000 annual air passengers by the year 1960 is reasonably conservative. The limiting circumstance on the horizon is the possibility that the United States may again become engulfed in global warfare. If the experience of World War II is repeated, the growth of air travel may then be sharply curtailed because of lack of equipment during the period of large-scale hostilities. The figure of 40,000,000 would be reached by an annual average increment of just slightly over two million a year, starting with 1950 as a base (the annual increment in 1948-1949 and 1949-1950, before the impact of the present defense program). To put it another way, this figure would be reached by an average annual increase of about  $8\frac{1}{2}$  percent a year starting with 1950 as a base (or of about  $6\frac{1}{2}$  percent starting with 1951), in contrast with the 15 percent increase annually in 1949 and 1950.

The estimate of 40,000,000 passengers by 1960 means that airline passenger traffic will more than double during the decade. A growth of this magnitude will of course profoundly affect airline and airport managements and governmental aviation agencies. Even more than in the 40's aviation is a coming business.



# Our Financial Health at the Outset of Four Wars

DONALD L. KEMMERER

*Professor of Economics, University of Illinois*

FOR THE fourth time in a century we face a major war or its equivalent. The cost of modern wars is tremendous. The previous three consumed from a fourth to a half of the national income at the time they were waged and another would take at least as much. How shall we pay for such a war if it materializes or how shall we pay for the very costly defense program if we somehow avoid major hostilities? What effect will all this have on our standard of living? An analysis of three previous wars — the Civil War and World Wars I and II — may suggest some of the answers.<sup>1</sup>

The people waging it pay the direct cost of any war. They can expend only present bombs, equipment, and personnel. They cannot foist the cost on future generations, at least not in the collective sense. After the war taxpayers may pay heavier taxes, but bondholders and pensioners receive these funds. Thus, if the people waging a war must bear its cost, they should do so as efficiently as possible. They should learn from the experience of the past what way is likely to be least efficient and what way most efficient. In choosing a method of financing, they should also take careful note of changed con-

ditions. Are their strengths and weaknesses at the outset of this war the same as their strengths and weaknesses at the outset of past wars?

The success of the financing of a war may be measured by the extent to which inflation has been curbed. Put another way, the greater the inflation, the poorer the financing. The less inflation there is, the less likely are the nation's economy and the people's standard of living to be disturbed during and after the war.

## Three Basic Ways of Paying for Wars

The direct financing of a war can be met by any of three ways, or by a combination of them. These are taxation, borrowing, and creating money (including demand deposits or checking accounts). The cost of a major war is so great that all three methods have to be used. Undoubtedly all will be used again this time. The question is whether most of the money will come from taxation, or most from borrowing, or most from creating money. What proportions will be obtained by each method? Taxation, borrowing, and creating money are desirable and yet painful in just that order. All three may lead to inflation (noticeably rising prices), but creating money is by far the most likely to do so. Let us see why.

Taxation normally diverts civilian dollars from peacetime to military uses, and thus slows the price rise of civilian goods. But if taxes become unduly high, say over 25 percent, some unions and

<sup>1</sup> At the December, 1951, meeting of the American Economic Association in Boston, I discovered that Professor Milton Friedman, of the University of Chicago, had been independently working on a study resembling this one. In a number of respects our conclusions are very similar. His paper will appear this summer in the *Papers and Proceedings of the 64th Annual Meeting of the American Economic Association*.

other organized groups use the excuse that since higher taxes have cut down their "take-home pay," they must demand higher wages. When granted, these lead to higher prices. Very high taxes can also curb people's incentives to work, thus cutting production and stimulating inflation. Generally, however, the advantages of taxation far outweigh its disadvantages.

Borrowing has provided the government with most of its funds in past wars. When the government borrows existing savings, it diverts civilian spending power from peacetime uses to war purposes. But if it borrows future savings, then, until they materialize, the money created to buy government bonds is so much more money coming into circulation. In the latter case, the degree of inflation depends in large part on the extent to which the nation's resources, capital, and labor were being employed. The more fully they were employed, the more likely is inflation to result.

Creating money in the sense of grinding out more bills on the printing presses has not figured as an important way of financing any American wars in the last century except that of the Confederacy. We still create money to finance wars, however; we simply do it in a more subtle fashion. The process is so roundabout that the Treasury and the bankers not only fool most of the public but occasionally fool themselves. Basically, what happens is that the government borrows from the banks and takes checking accounts in payment. Most of the time the process is rather involved, but that is what it amounts to. The procedure is, of course, inflationary, because in practice checking

accounts are money just as much as dollar bills are. Such war-induced accounts are sometimes called "invisible greenbacks." Thus, most modern wars appear to be financed partly by taxation and partly by borrowing and hardly at all by the creating of money. Yet actually some of the borrowing is a subtle creating of money. To determine in a rough way how much has been created, compare the demand deposits in existence at the start and at the finish of any war. To get a more refined estimate, make allowance for the increase or decrease in real national income, that is, in terms of dollars of some base year, say, 1926.<sup>2</sup> (See Table 1.)

### Method of Analysis to Be Used

Factors that most affect *taxation* at the start of a war are the national income, the tax system in operation, and the current tax burden. (See Table 3 for these.) Once a war begins, the most noteworthy tax factor is the proportion of war costs financed by taxes.

Background conditions affecting *borrowing* are the amount of Federal<sup>3</sup> and private debt in existence and the extent to which people are accustomed and willing to buy government bonds. (See Table 2 for these.) After the war is under way, the important points are: the extent to which the war is financed by bond sales, the interest rate, and the

<sup>2</sup> Professor Friedman refines this one step further by endeavoring to distinguish between gains from the creation of money accruing to the government and those accruing to commercial banks.

<sup>3</sup> Only Federal debt figures are used. Comparable data on state and local debts before all four wars are not available. To the extent that they are available, they do not appreciably alter the picture.

degree to which bonds are sold to individuals and nonbanking institutions rather than to banks.

As for factors affecting the *creation of money*, a nation is monetarily strong before a war if it has a convertible gold standard or a bimetallic standard and if it has not experienced inflation for at least a generation. (See Table 1 for these.) Also, inflation is less likely to occur if the war is preceded by a period of unemployment and idle capital than if preceded by a period of full employment and prosperity. During war, the less money and demand deposits created, the better; the more the central bank can keep credit expansion under some control, the better; and the greater the increase in real national income, the better.

These are the considerations which will be used in analyzing three wars in our history and the background of a situation which might lead to a fourth and, in any event, will call for an extremely costly defense program.

Let us now examine the financial conditions existing at the start of these wars and also some details about the

three methods used in financing each of them.

In analyzing the financing of each war we shall first examine the factors affecting taxation; second, those affecting borrowing; and third, those affecting money creation.

### Financial Conditions at the Outset of the Civil War

The Civil War came at the end of two generations of industrial expansion. Most of this industrial growth took place in the North, for the South, where "cotton was king," was almost completely agricultural. From the viewpoint of number of states, population, and railroad mileage, the North accounted for two-thirds of the country, and the South for only one-third. The North had to defeat the South because a mere stalemate would not bring the Confederacy back into the Union. The North thus had the more difficult task.

*Taxation.* The national income of the North in 1859 was about \$2.9 billion but the dollar was worth more then. In terms of 1926 dollars and on a per capita basis, the average Northerner

Table 1. Creation of Money in Four American Wars

Item	Civil War	World War I	World War II	Present War
Monetary standard.....	Gold coin	Gold coin	Inconvertible gold bullion	Inconvertible gold bullion
Years since last inflation....	46	52	21	3
Was gold standard suspended?.....	Yes—1861-79	Yes—1917-19	No	.....
Gross increase in demand deposits and currency....	\$500 million	\$9.8 billion	\$54 billion	.....
Net increase, allowing for growth.....	\$500 million	\$9 billion	\$31 billion	.....
Percent of war cost paid by money.....	12	30	10	.....
Percent of increase in real national income.....	0	6	47	.....
Unemployment before war	No	No	Yes	No

had an income of \$296. That is about one fourth of today's average. Federal taxes, chiefly custom duties, absorbed less than  $1\frac{1}{2}$  percent of the average person's income. After the war got under way Congress levied additional import taxes. Internal revenue taxes, both excise and income taxes, also increased. By the end of the war the North was paying for about a quarter of the direct cost of the war out of taxes. Yet the ratio of taxes to national income for the four years of the war was only 4 percent. (See Table 3.)

*Borrowing.* When the war began, the Federal debt was about \$3 per capita. A generation before, the government had been debt-free. If there were no debts to speak of, there was also no tradition of bond buying on the part of the public. At first people were reluctant to buy bonds, and this reluctance was strengthened by a series of Southern military victories. Thanks to the imagination, energy, and organizing ability of a Philadelphia banker named Jay Cooke, a tradition of bond buying by the public was established. To make the bonds attractive, they were made purchasable with depreciated paper money called "greenbacks," but the interest and principal were payable in gold. Cooke organized a corps of some 5,000 salesmen who sold bonds from door to door. The nation met about 70 percent of the cost of the war by the sale of bonds. Professor Wesley C. Mitchell later estimated, however, that the use of "greenbacks" increased the cost of the war by about \$600 million. At the end of the war the Federal debt was \$75 per person, which was quite a burden at the time. (See Table 2.)

*Creating money.* The nation was legally on a bimetallic standard in 1860, but actually it was on a gold standard. Although some gold coins and subsidiary silver coins circulated, most of the hand-to-hand money consisted of the bank notes of 1,600 banks. A sizable proportion of these circulated at a discount, and counterfeiting was also a serious problem. The National Banking System, designed to provide the nation with bank notes acceptable at par everywhere, was inaugurated during the war, but it had little influence immediately. Demand deposits or checking accounts were growing in popularity in the larger eastern towns and cities, but this method of payment did not overshadow cash payments until well after the war. There was no central bank to exercise a restraining influence on the expansion of bank notes or of demand deposits.

The bank notes in circulation increased during the war, and demand deposits grew also. Most important, however, was the increase in the government's paper money issues. These drove the nation off the gold standard late in 1861, and it remained off until 1879. Altogether some \$431 millions of "greenbacks" were issued. The per capita supply of hand-to-hand currency almost doubled. Fortunately there had been no eras of inflation in the recent past, and the public was not inflation-minded. This probably slowed the rise in the price level. Approximately 12 percent of the cost of the war was paid by creating money. (See Table 1.)

Our knowledge of production and unemployment just before the Civil War is vague at best. In general, this



was a period of economic growth. The depression of 1857 had been short-lived and the country had entirely recovered from it. There was virtually no increase in production as a whole during the Civil War.

To sum up Civil War financing and inflation, the war was preceded by a long period of peace and growth, the Federal debt was small, taxes had been light, and the monetary system was mediocre in quality. Only such favorable conditions explain the fact that the four-year Civil War produced only a 70 percent increase in the cost-of-living index in the North. (See Table 4.)

### Financial Conditions at the Outset of World War I

World War I, like the Civil War, took place at the end of two generations of tremendous industrial expansion, virtually uninterrupted by war. The Spanish-American war was of little significance.

*Taxation.* The national income in 1916 was about \$40 billion. On a per

capita basis in terms of 1926 dollars this was about \$627. Federal taxes were small and consisted of excise taxes and import duties. The income tax amendment had just been adopted in 1913, but the income taxes were light until the United States entered the war in 1917. By 1918 income taxes were bringing in \$2.8 billion, and the levies in the top brackets were at 50 percent. The ratio of taxes to national income was slightly higher this time — about 5.5 percent. (See Table 3.)

*Borrowing.* The government conducted the sale of war bonds on a grand scale in World War I. The nation was in a position to carry a large Federal debt. In 1916 the Federal debt was \$1.2 billion, scarcely any burden at all. Private debt amounted to the sizable total of \$77 billion, however. As before the Civil War, there was not a tradition of government-security buying among the public. That had to be fostered, and it was fostered. Four highly publicized Liberty Loan campaigns and a Victory Loan campaign after the Armistice raised over \$20 billion. The

Table 2. Borrowing in Four American Wars

Item	Civil War	World War I	World War II	Present War
Federal debt before war...	\$65 million	\$1.2 billion	\$43 billion	\$255 billion
Per capita Federal debt before war.....	\$3	\$12	\$333	\$1,667
Private debt before war....	n.a.	\$77 billion	\$126 billion	\$197 billion (1948)
Total public bond sales....	\$2.6 billion	\$21.4 billion	\$157 billion	.....
Interest rate on bonds.....	5-6%	3.5-4.75%	1.5-2.9%	.....
Special terms on bonds....	Repaid in gold	None	Market supported	.....
Percent of war cost paid by bonds.....	70	50	50	.....
Federal debt at end of war..	\$2.7 billion	\$25.5 billion	\$259 billion	.....
Per capita Federal debt at end of war.....	\$75	\$240	\$1,850	.....

n.a. Not available.

interest paid on these bonds ranged from 3.5 percent to 4.75 percent. At the end of the war, the Federal debt was \$240 per capita. (See Table 2.) This debt was half the national income and was considered an immense burden at the time, although some European nations had debts double their national incomes.

*Creating money.* From a monetary standpoint also, the country was in excellent condition at the start of World War I. A gold coin standard was in good working order. No eras of noticeable inflation had occurred since Civil War days, although the price level had been creeping upward since 1896. The public, therefore, was not susceptible to fears of inflation. The banking system had just been overhauled, and the country had a fine modern central bank. This was the Federal Reserve System, which began operations in November of 1914. This time the Treasury issued no "greenbacks." The government used a more subtle device for increasing the money supply. With the help of the Federal Reserve System the banks increased their total of demand deposits from about \$10 billion in 1914 to about \$20 billion in 1920. (See Table 1.) These were sometimes called "invisible greenbacks." The country slipped quietly off the gold standard in 1917 and slipped as quietly back on again in 1919. We had no difficulty in returning to the gold standard, because our price level had risen less than that of any other major nation.

Production was at a high level in 1916 and increased only modestly during the war period. Greater increases

in production would have reduced the inflation.

To sum up, the war was preceded by a long period of extraordinary growth amid conditions of peace, the Federal debt was small, taxes were light, a fine new tax system had just been installed, the monetary system was in excellent shape, and the banking system had just been overhauled. Under such nearly ideal conditions, it seems a little surprising that the Bureau of Labor Statistics' cost-of-living index almost doubled between 1914 and 1920. (See Table 4.) Probably part of the explanation lies in the fact that we were extremely slow in preparing for the war, despite ample warning. Then when war came, we had to make a tremendous effort in a short space of time and had little surplus in the way of men, capital, and resources upon which to draw.

### Financial Conditions at the Outset of World War II

World War II was preceded by a decade of depression. From the standpoint of financing the war with a minimum of inflation, this had advantages. On the other hand, World War II was more of a global conflict than its predecessor. We were actually fighting two militarily powerful nations simultaneously in opposite parts of the world. As in the Civil War days, we were committed to a policy of "unconditional surrender" and the conflict lasted four years.

*Taxation.* In 1940 the national income was \$75 billion. In terms of 1926 dollars and on a per capita basis, the average person had an income of \$694.

Table 3. Taxation in Four American Wars

Item	Civil War	World War I	World War II	Present War
National income before war	\$2.9 billion	\$40 billion	\$75 billion	\$250 billion
Per capita income before war in 1926 dollars. . . . .	\$296	\$627	\$694	\$1,125
Federal expenditures at start of war. . . . .	\$56 million	\$512 million	\$9.2 billion	\$45 billion
Per capita Federal taxes at start of war, current \$. . .	\$1.80	\$5.00	\$40.00	\$250.00
Percent of war cost paid by taxes. . . . .	18	20	40	.....
Percent of taxes to national income during war. . . . .	4	5.5	18	.....

That was only a little better than before World War I. Although the income tax was now important, as late as 1940 income taxes on individuals yielded the Federal government only about \$1 billion, and income taxes on corporations yielded about the same. The budget had been unbalanced for almost a decade. As soon as the United States entered the war, Congress increased income taxes, at first moderately and then drastically, so that by 1945 income and excess profits taxes were providing \$35 billion. Excise taxes were also hiked. The ratio of taxes to national income was 18 percent, which was much higher than in any previous war. (See Table 3.)

*Borrowing.* For the first time in our history, we had a sizable Federal debt at the outset of a major war, amounting to \$43 billion in 1940. Congress was so concerned that it had put a "ceiling" on the Federal debt. This debt was more burdensome relative to average income than the debt after World War I had been. Fortunately there was more of a bond-buying tradition among the American people than ever before, thanks to the habits of World War I and to the stock market experience of

the 1920's. People were favorably inclined toward government bonds because of the unhappy aspects of the stock market experience and also because government bonds were such an excellent investment during the depressed 1930's. On the other hand, some people were deterred by the low interest rates — about 2 percent — and some with long memories recalled that after World War I Liberty bonds had sold in the low 80's. Something had to be done to compensate for these disadvantages. Not only did the government guarantee the principal of its bonds at maturity, but also, by having the Federal Reserve System support the bond market, it guaranteed them before maturity.

Eight war loan drives brought in \$157 billion during World War II. These drives were much larger than the Liberty Loan drives of World War I. By the end of the war, nearly everyone had some money invested in government war bonds. Within a few months of the end of the war, the Federal debt was estimated at \$1,850 per capita. For the first time in our history we had a Federal debt greater than our national income. (See Table

2.) Our debt situation was similar to that of England, France, and Italy after World War I. All three of these countries had experienced considerable difficulty at that time in preserving the value of their monetary units. Our prices continued to rise for over three years after World War II ended.

*Creating money.* The nation was on a qualified gold bullion standard at the start of World War II. Although we had greater gold reserves than ever before in our history, our money was not convertible into gold domestically. It was such a weak standard — so little better than a paper standard — that we did not have to abandon it under the stresses of war.

There were probably some latent inflationary pressures in our monetary system even before the war began, and there were even more later. The devaluation of 1934 had been undertaken with the idea of raising the price level by about 70 percent. It was a mistake to assume, as some did, that this rise would take place quickly, although devaluation should raise prices considerably over a period of time. Yet, as late as 1940, the cost-of-living index had risen only a few percentage points. One common explanation for this was the much slower turnover of money. If this explanation was right, then the faster turnover of money, that is, more business activity due to the war, should have produced an increase in the price level.

By 1940 there was nothing to stop this expansion. The commercial banks of the country had tremendous excess reserves and were able and willing to lend to business, which was anxious to borrow to fill numerous war orders.

The Federal Reserve System was in no position to prevent their doing so. Legal reserve requirements were near their maximum and open-market selling operations were inconsistent with the Treasury's policy of maintaining bond prices. It is not surprising, therefore, that business increased its borrowings and prices rose.

The Federal Reserve System in this war, as in World War I, concerned itself primarily with helping the Treasury finance the war as easily as possible. It took care that banks had ample reserves for war loans. It also added about \$20 billion of government securities to its own portfolios during the war. True, these were not bought directly from the Treasury, but the results were much the same in the long run as if they had been.

The commercial banks also contributed toward the inflation. In 1942 they bought about half of the bonds offered in the war loan drives. After 1942, banks were limited to short-term securities and to market purchases of bonds maturing in less than ten years. This slowed and complicated the basic process of swapping checking accounts for bonds, but did not alter it. Demand deposits doubled between December, 1941, and December, 1945. Currency outside banks increased even more sharply. Although not all these factors may be regarded as inflationary, since production also grew in this period, some of them were. At least 10 percent of the cost of the war was paid by creating money in this fashion. (See Table 1.)

In contrast to the two previous wars, per capita production had declined very materially in the years before the



war. Between 1899 and 1929 total production increased 33 percent every decade, but in the depressed 1930's it increased hardly at all. As late as January of 1940 there were eleven million persons unemployed. Thus there was a tremendous unused reserve of manpower in the economy. It is an ill wind that blows no one good, however, and probably the depression of the 1930's helped to limit the inflation in the 1940's.

Thanks to this manpower reserve and to previously undeveloped technological methods, the nation's production made up for lost time. Between 1941 and 1945 national income, in terms of 1926 dollars, increased almost one half. This contributed greatly towards restraining inflation.

Inflation was also checked by the government's price-fixing program operated by the Office of Price Administration (OPA), which was fairly effective between 1942 and 1945. It might have been more effective had it been instituted earlier. Between 1940 and 1948 the cost-of-living index increased about 70 percent. (See Table 4.)

To sum up, a decade of depression and unemployment preceded the war, the Federal debt was sizable but taxes were not heavy, the monetary system was mediocre, the price-raising effects of the 1934 devaluation had scarcely been felt, and the Federal Reserve System was not in a position to curb credit expansion and control inflation even if it had been so minded. The war was long and tremendously costly. That there was not more inflation may be attributed largely to the reservoir of unemployed labor and equipment at

the outset of hostilities, the phenomenal increase in production achieved during the war, and the price control program.

### Present Financial Conditions

The central question at present is whether there is to be a World War III. In any event, defense preparations are being undertaken on a scale almost typical of war. Defense expenditures are rising every month and are expected to reach a \$62-billion rate by 1952-53. Although fewer persons anticipate actual war now than did a few months ago, war is a real possibility. New York and other large cities have made preparations for atomic bomb attacks. All this is happening just a few short years after the close of World War II in a world that is weary of war and sophisticated in the methods of financing wars. It is happening in this nation after seven years of peace, prosperity, and virtually full employment. How are these and other conditions and attitudes likely to affect the financing of such a war or of the costly defense program? Again let us look at the situation in the terms of the three methods of war financing.

*Taxation.* The national income (personal income) is about \$251 billion. Reduced to 1926 dollars this a per capita income of about \$1,125. That is approximately the average for the period of World War II as a whole. Federal taxes in the past year took about 20 percent of the personal income. That is more than taxes took, on the average, throughout World War II, and we are not actually in a third world war. (See Table 3.)

At the start of World War II about 6 percent of the population paid in-

Table 4. Statistics on Four American Wars

Item	Civil War	World War I	World War II	Present War
Dates of war.....	1861-65	1917-19	1941-45	1950-
Duration in months.....	48	19	45	.....
American population at start of war (millions)...	22	102	131	151
Cost of war, direct.....	\$4 billion	\$26 billion	\$330 billion	.....
Percent of war cost to national income.....	27	25	46	.....
Percent of rise in cost-of- living index.....	70(1865)	85(1920)	70(1948)	.....
Percent of rise in wholesale price index.....	117	174	115	.....

come taxes, but today 33 percent are subject to income tax. Only children, other dependents, and the very poor are exempt. The government now taxes large individual incomes up to 85 percent. Corporation taxes have also been increased. Since corporation profits less taxes amounted to only \$18 billion in 1951, additional revenues must obviously come largely from excise taxes, sales taxes, and broadening of the income tax base. This war or war threat seems likely to tax the average man's pocketbook until it really hurts, more than any other emergency we have ever encountered.

*Borrowing.* If the government tries to finance the war or defense program by borrowing, it will also encounter greater difficulties than before. The Federal debt is \$260 billion, or \$1,700 per person. The private debt is almost an equal amount. About half the earning assets of all commercial banks consist of government securities. A quarter of the assets of all life insurance companies are in government securities. The ten-year savings bonds, or E bonds, which were sold to millions of persons in the 1940's, are coming due in the next few years. Many persons are

awakening to the fact that the dollars they are getting back are worth only 50 or 60 percent as much as the dollars they put in. That fact is not an inducement to repeat the process. In 1951 more series E bonds were turned in than were purchased.

The threat of inflation presses bond prices down. Until recently this forced the government to support the bond market and may force it to do so again. That method amounts to monetizing the debt, namely, exchanging old bonds for new money. A major portion of the Federal debt is short-term or is nearing maturity, so that large-scale refunding operations are constantly necessary. In brief, bond yields are still low in relation to the income return on stocks, and bonds do not protect the purchasers' dollars from inflation. This makes it difficult for the government to use the financing method that has been most effective in all past wars.

*Creating money.* We are left, then, with the third method of financing: creating money and credit. Are we in a healthy condition to use this way? We are still on a domestically inconvertible gold bullion standard. Such a standard is not calculated to instill much confi-

Table 5. Increase in Real National Income, 1946-51

Year	Current national income (billions)	Cost-of-living index <sup>a</sup>	Real national income (billions)
1946.....	\$180.3	139.5	\$129.2
1947.....	198.7	159.6	124.5
1948.....	223.5	171.9	130.0
1949.....	216.7	170.2	127.3
1950.....	239.0	171.9	139.0
1951.....	275.8	185.6	148.6

Source: *Federal Reserve Bulletin*, February, 1952, pp. 194, 196.

<sup>a</sup> Bureau of Labor Statistics index for moderate income families in large cities. 1935-39 average = 100.

dence. The Federal Reserve System has several powerful credit control devices, but some it cannot use at all, and others it must use sparingly, lest it seriously disturb the government bond market. Most of the time the Federal Reserve has felt obliged to buy government securities when it should have been selling them. That is like pouring gasoline on a fire to put it out.

The country still has a vivid memory of the World War II inflation and of the methods used to check it. To be effective, any new price controls will have to be much more sophisticated than those of 1942. Too many people will remember the last time. This is the first time in two centuries that we have had two major wars or their near equivalent in rapid succession. Although prices have been rising for a decade, many persons had consoled themselves with the belief that a post-war depression would send prices part way down again, as it did after World War I in 1920-21. Now a depression seems unlikely; instead there is to be another war, or a reasonable facsimile thereof, and more inflationary pressures.

One of the greatest offsets to the World War II inflation was the

marked increase in production. That was possible because we had eleven million unemployed as late as January, 1940, and much idle plant capacity. We simply added war production to peace production, leaving peace production largely unchanged, but increasing total production, alias national income, by one half. In contrast, today we have virtually full employment and many industries operating at near-capacity. Production in the United States has increased only modestly in the past five years. True, national income has gone up because wages and prices have gone up. Divide national income by cost-of-living indexes, however, as is done in Table 5, and you will find that no great change has taken place. Thus, it seems unlikely that we shall be able to repeat the miracle of World War II. If we cannot do that again, then the impact of inflation will probably be so much the greater.

In summary, the present finds the country war-weary and inflation-wise because of recent experience with World War II. Taxes are at war levels, the Federal debt is heavy, the banks are loaded with bonds and individuals

are growing suspicious of them, the monetary system is mediocre, and the Federal Reserve System is not in a good position to control inflation. With conditions of full employment at the outset of a possible war or at least of a costly military program, there seems little likelihood that production can be increased markedly.

### What May Be Expected

Conditions at the outset of our three previous major wars have conspired to save the nation from really serious inflation. In the Civil War and World War I there was ample room for tax increases, the Federal debt was small, people could be stimulated to buy bonds, the monetary system was in good condition, and there was no recent memory of inflation. In World War II, taxes were still not unduly heavy, bonds could be made attractive, the weaknesses of the monetary and banking system were not yet too apparent, the most recent memory was of deflation rather than inflation, and the nation had considerable idle plant capacity and unemployed manpower. As a result, the cost-of-living index rose

only about 70 to 85 percent in all these wars. (See Table 4.)

This time, however, conditions seem to conspire to threaten the nation with more serious inflation. Taxes are already high, and it will be difficult to push them higher. Our people and our institutions are loaded with government bonds. The bonds, with inflation in prospect, are not attractive. Current experience confirms that. We do not have a sound gold coin standard. The weaknesses of the Federal Reserve System required drastic action last year and may require more attention later. People have become increasingly aware of the menace of inflation. Yet they are suspicious of price controls and sophisticated in their evasion. Whether we enter a full-scale war or, more likely, proceed with a major rearmament program under full employment conditions, there seems little chance of offsetting inflationary pressures for long with increased productivity. Continued inflation appears very probable. Only the unwary will be misled by the short periods of mild decline that may interrupt the rising price trend in the years ahead.



# Job Rotation for Unskilled Labor

RUTH MINER\*

IT IS common knowledge that work on an assembly line is monotonous. There is evidence that it also causes fatigue and other ill effects. Job rotation may provide a partial solution for these problems. The purpose of this article is to describe the workings of a job rotation plan in operation in 1951 in the plant of a company whose product is nationally known.<sup>1</sup>

Before going too deeply into specific details of the job rotation system, it may be well to inquire why anyone would be interested in finding, cataloging, and studying such techniques as job rotation. To delve very far means going back and looking at the trends in factory production since the industrial revolution, and especially at assembly processes as they have evolved into what we have today. As is well known, the course of events has been a long history of breaking away from the craftsman technique which, although it had served society well for several centuries, was utterly incapable of producing the volume of goods demanded and used in modern times. The methods of modern mass production have been to

specialize, segment, and break down into many small units the processes involved, so that instead of one person's performing many jobs, he does only a little bit, performed many times over. That is the essence of the present-day factory method.

At the same time that industrial methods were being evolved, unfortunate things were happening to people's lives. The industrial revolution ushered in the sixteen- and eighteen-hour factory day, child labor, and mere pittance for pay. Very slowly, partly as a consequence of general humanitarian instincts and partly because of the growth of labor unions, society worked itself out of these, so that we do not think of these nineteenth-century ills as characteristic of our laboring people today. Instead, we pride ourselves on such advances as the eight-hour day, the minimum wage, and plant safety. However, the repetitive motion, the screwing of a bolt a thousand times a day, still remains as the symbol, and in many cases the true picture, of the American industrial system.

Should this fact that the repetitive-motion idea is the backbone of unskilled-labor utilization in factories all over the country be deplored? There are people who maintain that screwing the same bolt, day in and day out, does things to the factory worker's personality; that it puts to sleep certain of the higher analytical processes of his mind; that the worker ceases to do independent thinking, sliding into patterns of acceptance, and then seeking

\* Miss Miner, now a second-year law student at the University of Chicago, has a degree in sociology from Knox College and received a master's degree in political science, with emphasis on public administration, from the University of Illinois last year. She was a member of the YMCA-YWCA "Students - In - Industry" Project, Pacific Southwest Region, for the summer of 1951.

<sup>1</sup> As a participant in the project studying industrial relations problems, the writer took an unskilled job as a regular employee in this plant without revealing her status as a student until the time of her resignation.

to escape from the monotony by whatever means possible after the day's work is over. If this is true, it has unpleasant implications for the future political democracy of our nation, and for the mental health of our people as a whole.

A great many remedies have been suggested to counteract the monotony of the assembly line. They have ranged from proposals for the better use of free time—the general approach of most social service and community chest agencies—to suggestions for making the job more “exciting,” such as airplane rides for aircraft workers, or more “meaningful,” such as plant tours to see the part each subassembly plays in the composition of the whole product. None of these attempts should be belittled or discouraged. However, only a few of the proposals have gone beyond alleviation measures. Most of them have not struck at the core.<sup>2</sup>

The job rotation system observed recently by the writer is one which has been in successful use for about ten years. Apparently it had sprung up spontaneously among the employees during World War II, when patriotism and governmental restrictions kept people at the same jobs, and was fostered by lenient and wise personnel policies. At any rate, the fact that girls voluntarily switched jobs when they were tired of doing the same thing has culminated in that plant in a full-blown and effective system of job rota-

tion. Furthermore, the company likes it. The plant foreman under whom the writer worked commented enthusiastically, “Our girls are happier that way. We wouldn’t run our plant any other way!”

The job rotation was a real rotation. A woman employee worked at one position from eight o’clock till the mid-morning break; when she returned from the rest period, she held down a second position until noon; a third, between lunch and the mid-afternoon break; and then a fourth till the close of the work day. This meant that each period at the machine or at a particular place in the line was approximately two hours long. It also meant that each person performed four different tasks each day.

The company makes a variety of products; and since these products are somewhat perishable, and the sale for them has certain seasonal fluctuations, the plant was not set up for manufacturing all of them at one time. Limited observation seemed to indicate that the work fell into two- and three-day cycles—that every other day, or with two days in between, the same product reappeared. That fluctuation did not, however, preclude the rotation system. Sometimes the jobs on the floor were predominantly of one kind. In that case, part of the girls would not have four jobs that day, but only three; or perhaps the whole work force would be assigned to three different jobs, and some girls temporarily to two. Even with the high frequency of certain kinds of jobs, the program was watched for alterations which could be accomplished.

In terms of letters as symbols for the

<sup>2</sup> Some excellent articles on job enlargement have been published. For example, see an article by C. R. Walker in 28 *Harvard Business Review* 54-58 (May, 1950). Job enlargement is the reversal of the trend toward segmented, repetitive motion as the basic element of the manufacturing process.

tasks themselves, full rotation would be expressed thus: A,B,C,D. For three-quarter rotation the plan was A,B,A,C rather than A,A,B,C. If only half rotation was possible, the worker still got the benefit of an A,B,A,B pattern, in preference to A,A,B,B. Both full rotation and three-quarter rotation were practiced on the same floor the same day, and only once did the writer hear a complaint of unfairness from any of the employees. That arose out of the special circumstance that a girl had been left unintentionally on a particularly fast job for six hours straight on a day when three-quarter rotation was possible for everybody.

There was no working time lost because of the reassignment. In general, each girl moved one operation further down the line when she came back from the mid-morning break, or she relieved some one who had not yet been out for a rest period. If the floor supervisor wanted an employee to shift from one subassembly line to another, she merely beckoned, and the girl came. With some of the teams, composed of only five or six girls, the rotation idea was so popular that they did their own shifting at hour intervals.

As the system has been described, the reader probably wonders what the advantages are from the point of view of management. There were several significant gains, the first of which was the low employee turnover: the company was better able to retain the services of its experienced employees. Other gains came from a lower spoilage rate by machine operators, a lower ratio of plant absenteeism, and more cooperation when overtime work was necessary.

All these results could have been anticipated in advance. There were other aspects, however, not too easy to measure, which nevertheless were important. The advantages incident to having each member of the employment force master all the operations were immense. If something went wrong on one of the subassembly lines, and the units started piling up because of its sudden incapacity to take care of the uneven flow of goods, any one of the nearby girls could step over to the machine and help with the operation in the momentary emergency. Always before, these persons had stood by not knowing how to help, and afraid that their inexperience would add to the confusion. Also, with a well-trained rotatable work force, there were no longer so-called key employees in the sense that some were almost indispensable. Even though some jobs were faster than others, there were always several employees who could handle them.

Not all jobs were equally easy to learn. Some seemed to demand much more speed and skill, and not all employees learned them readily. That fact did not invalidate the idea of job rotation. Actually, it was at these points that rotation was most sorely needed, and most heartily welcomed. The fastest jobs were the ones from which the operators needed relief most often. The floor supervisors tended to set up in their own minds rough categories of the speed requirements of each job. Thus Mary and Susy and Alma, the three speediest girls on the floor, shifted with each other. The slow ones, Joan and Ruth and Margaret, interchanged. Laura and Hattie, who were moder-

ately swift, with good possibilities of becoming better, were eased into the fast jobs without disaster, by virtue of a week's breaking in at the less nerve-racking pace of two hours every day.

By now some readers may be deploring the extra cost of training needed to break a person in to not one job, but ten. Here a word of caution is in order. It took no extra persons to train people. The floor supervisors integrated that task into their daily jobs with surprisingly little effort. The system had originated through the happenstance of people's standing beside each other on the assembly line and trading work. That same core, with only a little modification, remained the basis for the rotation. To that fact is credited the ease of employee orientation. Very little instruction is needed to teach a person a new job if he has seen it performed by others hundreds of times a day. Moreover, after he has had a try at it for two hours, and then goes back to his old job, he watches with renewed attentiveness and interest to see how the other person does it. The learning process is very quick.

Some persons, considering this scheme, have commented, "Well, it sounds good, but the older employees won't like it." This certainly could be true, but opposition by the older employees is by no means universal. A great number of them would welcome seeing some variety filter into their eight-hour day. Even many of those who definitely come out and say that they like the old way best would be won over by a proper introduction to the rotation system, accompanied by full and adequate explanations as to

what it is meant to accomplish, and what the personnel department is attempting to do.

An inquiry as to the type of union contract under which the plant was working is appropriate. It was an AFL contract with an undifferentiated pay scale. The only gradations were on the basis of seniority. Thus, the beginning hourly wage was the same for all employees; advancements were automatic at the end of three-month and six-month intervals. One of the obstacles to job rotation in many plants is that under labor contracts providing for different wage scales it cannot be introduced. Those plants which have the type of graded pay scale consisting of a base pay, plus certain additional units of pay according to the skill involved in the job, would have to have the active support of the union, as well as the proper phraseology in their labor contracts, before such a system could be tried experimentally. It is conceivable, however, that since this plan combines good business and altruism, alert labor groups might become interested in the system for what it could accomplish for their people.

Very little has been said in this article about job rotation as a method of reducing group frictions. That area has been explored by Mr. A. Wood and Mr. M. L. Okun in a fine article called "Job Rotation Plan That Worked," published in a technical journal a few years ago. The writer concurs with their observations that job rotation takes away one of the most cogent reasons for hard feelings — that of complaints of boss favoritism in job assignments, and its concomitant, the



"I'm imposed upon" feeling of the laborer who, rightly or wrongly, thinks he has to work harder than his fellow worker.<sup>3</sup>

In conclusion, the reader might ask himself these two questions which really are the heart of the issue. First, is job rotation practical? Second, does it do what it purports to do — namely,

<sup>3</sup> *American Machinist*, May 9, 1946, pp. 114-115.

help combat assembly line monotony? The answer to both these questions is an unqualified yes. In the plant described herein, a plan acceptable to management had been developed. It has been in use for so long a period of years as to be no longer experimental. The labor force, the plant foremen, and the personnel office all like it. The plan does facilitate production, and, last but not least, it does reduce fatigue.

# Devaluation and the Dollar Gap

ROLAND GIBSON

*Assistant Professor of Economics, University of Illinois*

THE BALANCE-OF-PAYMENTS crisis with which Great Britain is now wrestling calls to mind the previous crises through which that country has passed since the last war and the efforts which were made then to solve the problem.

In 1947 the remedy was reduction in imports from the dollar area, a gradual expansion of exports, and financial aid from the United States. In 1949 a remedy was sought in devaluation of the pound sterling. In recent weeks some voices have again been heard calling for devaluation as a way out for Britain.<sup>1</sup> Perhaps if we examine some of the results of the last devaluation we can obtain a sounder basis for making a decision as to the wisdom of such a course of action now.

When the British government devalued the pound sterling from \$4.03 to \$2.80 to the pound in September, 1949, it was hoped that the lower prices at which British goods could consequently be offered in North American dollar markets would place British exporters in a more closely competitive position with local merchants in American and Canadian markets. This, it was hoped, would increase the sales of British goods sufficiently to net Great Britain more dollars and enable her to narrow the increasing gap between the value of British exports to the dollar area and imports therefrom. It is common knowledge that the dollar gap was

drastically reduced during 1950. Was this reduction the fruit of devaluation? It is the purpose of this article to analyze the available statistical evidence and to suggest an answer to the question.

First it may be well to point out that for the past century, at least, the United Kingdom has customarily imported considerably more goods from North America than it has been able to sell here. In the years immediately preceding and following the American Civil War the ratio of value of British imports from the United States and Canada to exports thereto was in the neighborhood of 1.5 to 1. In succeeding decades the excess of imports over exports widened, reaching serious proportions during most periods of depression in America and alarming proportions during the two world wars, and gradually increasing during more normal periods. By 1914 Britain was importing from the United States and Canada goods worth twice as much as the goods it was exporting to them. After the first world war the ratio jumped to 2.6; in the decade of the thirties it reached 3.0, ranging between 2.7 (1930, 1933, and 1935) and 3.7 (1938).

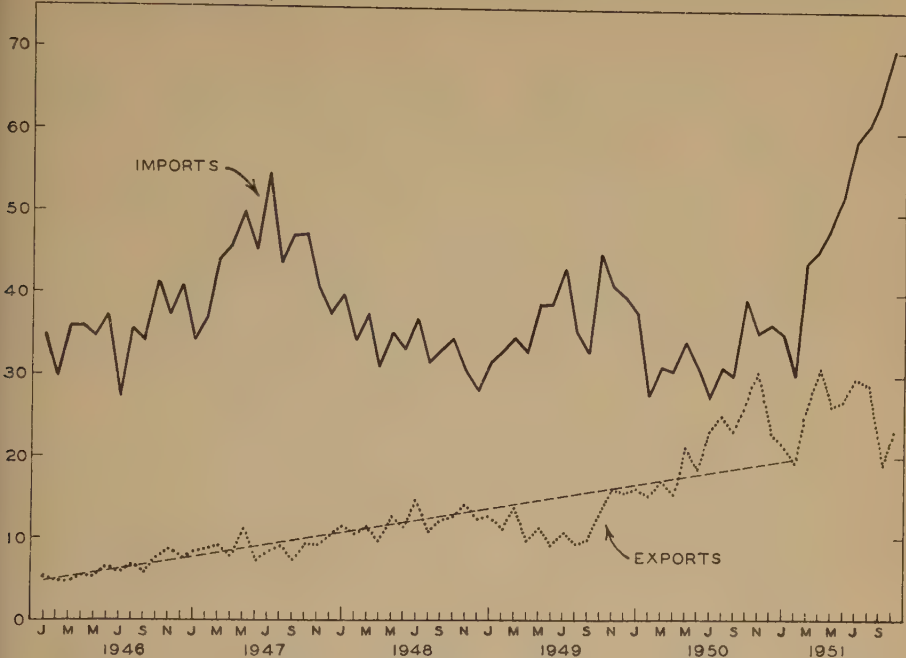
During World War II the gap reached the phenomenal ratio of 17.5 in 1944, but subsided thereafter to 5.8 in 1946, 5.0 in 1947, and 2.8 in 1948. In the last quarter of 1948 it dropped to 2.4.

Then came the business recession in the United States. By April, 1949,

<sup>1</sup> Other voices have been calling for upward revaluation, but that suggestion does not concern us in this article.

Chart 1. Monthly Trade of United Kingdom with United States and Canada

MILLIONS OF POUNDS STERLING



Source: *Accounts relating to Trade and Navigation of the United Kingdom: IV*—Value of Merchandise Imported and Exported.

British exports to North America had dropped significantly, as shown clearly by the lower line in Chart 1. At about the same time the value of imports from the United States and Canada rose considerably (see upper line in the chart). The ratio of British imports to exports rose to 3.4 in April and May, 4.2 in June, 4.0 in July, and 3.8 in August. Although the June and August increases may have been partly seasonal, the July ratio evidently was not, inasmuch as the ratio in that month of 1947 and 1948 was lower than in May and the other four months. The downturn continued in September, imports having been brought down to a more reasonable level.

Postwar data on the dollar gap in merchandise trade are given in Table I.

During the six months preceding the sharp break in exports to the United States and Canada in April, 1949, the import-export ratio stood at 2.5, which had been the average gap during the peacetime years between the Civil War and World War II. In the six months immediately following devaluation of the pound, the ratio stood at about the same point.

### Trend of Expansion

Between 1946 and 1948 Great Britain expanded her exports to North America at the average rate of nearly three million pounds sterling per

Table I. Trade of the United Kingdom with the Dollar Area  
(Value in millions of pounds sterling)

Area	1946	1947	1948	1949	1950	10/48 to 3/49	10/49 to 3/50	1/48 to 6/48	1/50 to 6/50	Percent change first half 1948 to first half 1950
<b>Imports from Dollar Area</b>										
United States.....	230	297	184	222	212	96	112	95	104	+ 9
Canada.....	201	239	223	225	180	95	110	116	88	-24
U.S. and Canada	431	536	407	447	392	191	222	211	192	- 9
Dollar account area	41	68	56	53	90	16	26	31	29	- 6
Total dollar area	472	604	463	500	482	207	248	242	221	- 9
<b>Exports to Dollar Area</b>										
United States.....	40	61	71	62	127	37	45	34	46	+35
Canada.....	34	46	73	81	128	39	49	33	58	+76
U.S. and Canada	74	107	144	143	255	76	94	67	104	+55
Dollar account area	14	21	32	30	43	16	18	16	21	+31
Total dollar area	88	128	176	173	298	92	112	83	125	+51
<b>Ratio of Imports to Exports</b>										
United States.....	5.8	4.9	2.6	3.6	1.7	2.6	2.5	2.8	2.3	.....
Canada.....	5.9	5.2	3.0	2.8	1.4	2.4	2.2	3.5	1.5	.....
U.S. and Canada	5.8	5.0	2.8	3.1	1.5	2.5	2.4	3.1	1.8	.....
Dollar account area	2.9	3.2	1.8	1.8	2.1	1.0	1.4	1.9	1.4	.....
Total dollar area	5.4	4.7	2.6	2.9	1.6	2.3	2.2	2.9	1.8	.....

month, or 35 millions a year. This trend has been plotted across the graph of actual exports in Chart 1, and projected on through 1949 and 1950. No clear trend is evident in the imports data, nor could one be computed legitimately, perhaps, inasmuch as British imports have been subject to such a large measure of government control since the war. A few observations can be made, however, regarding their erratic behavior. The abnormal 1947 rise was occasioned partly by unprecedented purchases of raw materials and capital goods for re-equipping the war-ravaged British economy, and

partly by emergency needs arising from the internal breakdown and destruction wrought by the unusual winter storm of that year. In early 1949 a drop in wheat imports from the Argentine had to be replaced by imports from North America, and in the autumn devaluation of the pound forced sterling import prices up. After the Korean war started, American stockpiling of raw materials and their subsequent use in the defense program brought about a huge increase in the costs of industrial raw materials which has affected Great Britain very adversely.

Chart 2 shows the movement in



Chart 2. British Imports from and Exports to North America, 1866-1950

1913 POUNDS STERLING



Sources: *Statistical Abstract for the United Kingdom*, for the early years; *Accounts relating to Trade and Navigation of the United Kingdom*, for the recent years.

British trade with North America since the American Civil War in real terms. The sterling values of imports and exports have been deflated by index numbers of British import prices and export prices on a 1913 base.<sup>2</sup>

A long upward trend in exports and imports will be noted up to World War I, followed by a decline in exports which has never been counteracted. The recovery in exports from World War II up to the Korean war appears to be of similar magnitude to the recovery after World War I. A short-term trend line drawn through the data from 1919 to 1923 would have approxi-

mately the same slope as one drawn through 1945 to 1948. A large part of the explanation for these recoveries in British exports to the United States and Canada undoubtedly lies in the restoration of more normal trading, after the periods of war disruption. By 1923 British exports to North America had recovered to the 1914 level, and by 1948 they had recovered to the 1940 level.

During the two postwar periods, following World Wars I and II, there were no conspicuous changes in the trend of real national income in the United States and Canada, but between 1940 and 1946 there was a notable increase in real income of approximately 60 percent, contrasted with only a slight increase in real income in the similar war period 1914-1920. This great rise in American income during

<sup>2</sup> The results are only approximate for the years before 1919, because average prices over periods of several years had to be used, as originally computed by Dr. Werner Schlote, of Kiel, and employed by Colin Clark in discussing the terms of trade in the first edition of *The Conditions of Economic Progress*.

the last war would naturally provide the foundation for a greater increase in British sales to this continent than occurred in the 1920's. It does not seem unwarranted, therefore, to project the 1946-1948 trend of British exports to the United States and Canada at least through 1950, as has been done in Chart 1. An increase of at least this magnitude might reasonably be attributed to the increase in American demand for goods in general, which would be expected to include some British goods. There is no need to attribute any of the increase to devaluation of the pound.

### **Recession and Speculation**

The decline in exports in the early months of 1949 can be accounted for partly by the recession in the United States during those months, and partly by the widespread speculation against the pound which developed during that period. The fact that traders came to believe that the pound was overvalued, withheld purchases from Britain, and even sold pounds short, does not prove that devaluation had been made necessary in order to bring about the revival of British exports which subsequently took place. The American recession began to approach its end the month before the pound was devalued, as sales in manufacturing and retail trade, as well as industrial production, turned upward in August. No doubt devaluation had been made inevitable by the growing anticipation of its inevitability. Perhaps the pickup in British exports in October and November was sharper than it would have been in the absence of devaluation, much of the pickup be-

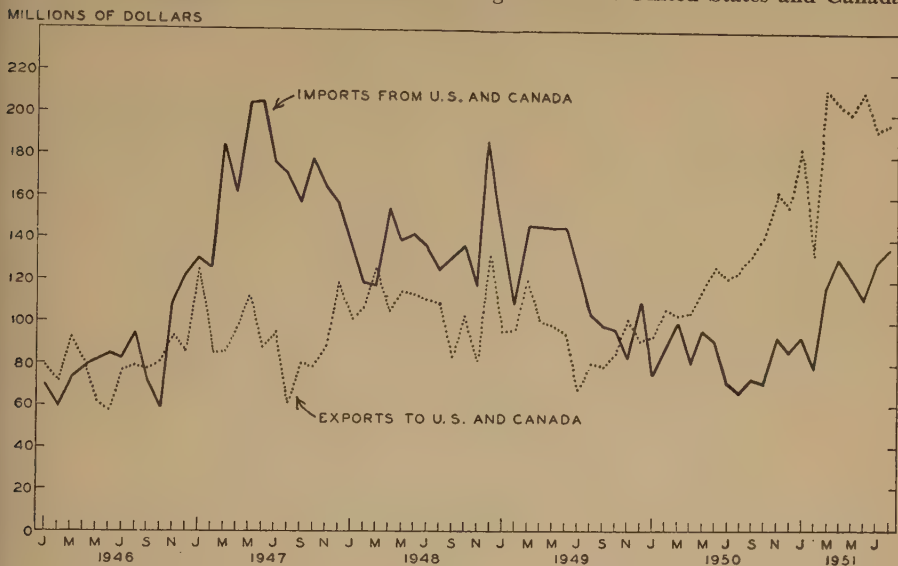
ing caused by the filling of orders for goods which had been deferred until they could be obtained at depreciated prices. But the pickup would very likely have come in 1950 anyway, as income and prices began to rise again in the United States.

Table I provides a few summary figures for Britain's trade with the dollar area in the first six months after devaluation, compared with the same period the year previous, and also for the first half of 1950 compared with the first half of 1948. The latter comparison probably constitutes a better basis for measuring the effects of devaluation than the first six months immediately following devaluation, because of the length of time it naturally takes for an exchange devaluation to produce its desired effects, since importers, wholesalers, and retailers must become informed as to exactly what reductions are going to be made in specific prices, orders have to be placed, deliveries arranged, and so on.

The trend plotted in Chart 1 would require an increase in the value of British exports to the United States and Canada of 49 percent between 1948 and 1950. Actually the increase was 55 percent, with the United States importing 36 percent more and Canada 75 percent more British goods. As pointed out by the United Nations World Economic Report for 1949-50,<sup>3</sup> a significant amount of the Canadian increase was caused by that country's turning to Britain for greater quantities of iron and steel products, and manufactures thereof, as a result of the

<sup>3</sup> Pp. 183-4.

Chart 3. Monthly Trade of Rest of Sterling Area with United States and Canada



Sources: U. S. Department of Commerce, Bureau of the Census, *United States Foreign Trade — Trade by Country*; Bank of Canada Statistical Summary — Exports and Imports by Countries (published monthly).

Note: Beginning with July, 1950, the U. S. Department of Commerce has not included certain security items in its statistics of exports, consequently the line of sterling area imports represents an underestimate from that date on.

severe restrictions imposed during 1948 and 1949 upon the import of such items from the United States. Thus the greater-than-trend increase in British exports to North America can be explained on this basis alone.

Britain's balance of trade with the Dollar Account Area has not been quite so unfavorable as that with North America.<sup>4</sup> Table I reveals that the

<sup>4</sup> The Dollar Account Area comprises those western hemisphere countries and Caribbean and Pacific islands whose dealings with the British Isles are settled in dollars. They include: the Philippines, Alaska, Puerto Rico, Hawaii, the Virgin Islands, Cuba, Haiti, the Dominican Republic, Mexico, Guatemala, Honduras, Salvador, Nicaragua, Costa Rica, Colombia, Panama, Venezuela, Ecuador, and Bolivia.

ratio of imports from the Dollar Account Area to exports to that area was reduced to 1.8 in 1949 and 1.4 in the first six months of 1950. The trade with this area comprises about one-eighth of British imports from the entire dollar area and one-sixth of her exports to the total dollar area.

### Sterling Area Trade

Great Britain's dollar problem was heightened considerably in the spring of 1949 by a marked increase in purchases by other sterling area countries from the United States and Canada. Beginning in November, 1946, the sterling area countries began to replenish their stocks of capital equipment, un-

Table II. Trade of Sterling Area (outside United Kingdom)  
with the United States and Canada  
(Value in millions of dollars)

Area	1946	1947	1948	1949	1950	10/48 to 3/49	10/49 to 3/50	1/48 to 6/48	1/50 to 6/50	Percent change first half 1948 to first half 1950
<b>Imports</b>										
United States	727	1,647	1,356	1,161	797	672	440	684	425	-38
Canada.....	261	359	293	292	188	167	100	129	94	-27
U.S. and Canada..	988	2,006	1,649	1,453	985	839	540	813	519	-36
<b>Exports</b>										
United States	819	962	1,096	928	1,266	538	505	579	563	-3
Canada.....	131	157	195	183	224	93	77	89	88	-1
U.S. and Canada..	950	1,119	1,291	1,111	1,490	631	582	668	651	-3
<b>Ratio of Imports to Exports</b>										
United States	.89	1.7	1.2	1.2	.63	1.2	.87	1.2	.75	.....
Canada.....	1.99	2.3	1.5	1.6	.84	1.8	1.30	1.4	1.07	.....
U.S. and Canada..	1.04	1.8	1.3	1.3	.66	1.3	.93	1.2	.80	.....

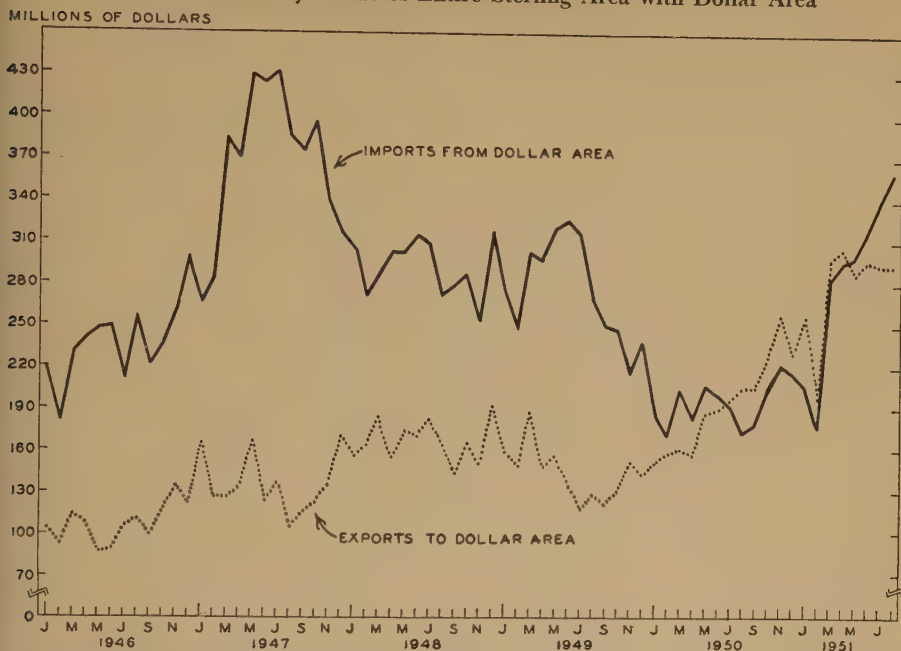
available during the war, by importing abnormal quantities of industrial goods from America. These purchases began to subside in 1948 but rose again in 1949. This reduced the sterling pool of dollars, held in the Exchange Equalization Account in London, upon which Britain might have drawn in her emergency, by converting pounds sterling into dollars to pay America for her increased imports in 1949. Chart 3 tells the story graphically. The sterling area imports remained at about the same high level until the Conference of Commonwealth Ministers convened in London in July, 1949.

At this conference the sterling area

countries agreed to cut back imports from dollar countries to 75 percent of their value in 1948. This they proceeded to do forthwith—before devaluation—through imposition of rigid import controls, and by September the 25 percent cut had been achieved. After that the downward trend was continued until the Korean war, at no greater rate than before, but resulting in a somewhat greater cut in dollar imports than had been anticipated at the Commonwealth Conference. The value of sterling area imports in 1950 was back at the 1946 level, but this was already double the average level in 1934-38 (United Kingdom imports



Chart 4. Monthly Trade of Entire Sterling Area with Dollar Area



Sources: A combination of the data in Charts 1 and 3, together with data on British trade with the Dollar Account Countries from *Accounts relating to Trade and Navigation of the United Kingdom*.

from the United States and Canada rose 55 percent in the same period).

Certainly devaluation of sterling by most of the sterling area countries could not fail to provide an added incentive, by raising the sterling price of dollar imports, for sterling area importers to go easy on such imports. But observation of the trend before devaluation offers no clear evidence for concluding that the reduction could not have been achieved without devaluation, through the import controls which were imposed by common action of members of the sterling area under Great Britain's leadership.

Table II and Chart 3 show for the rest of the sterling area that by Janu-

ary, 1950, the ratio of imports from the United States and Canada to exports thereto had been reduced below unity for almost the first time since the war. (Prior to World War II this ratio used to run in the neighborhood of .85-.89 for the United States and 2.0 for Canada.) The unfavorable balance of trade with Canada had been sharply cut, by the time of the outbreak of Korean hostilities, to 1.07, and the balance with the United States had also been improved. The over-all balance was "favorable," at .80.

The improvement in the export picture, shown in Chart 3 and Table II, was arrested in 1948, but since the second quarter of 1950 there has been

Table III. United Kingdom Exports to the United States,  
by Quantity, January-June, 1948 and 1950

Commodity	Unit	1948	1950	Percent change in quantity	Percent change in dollar price	Percent quan- tity increase needed to maintain average trend
Spirits.....	1,000 pf. gals.	2,206	2,387	+8	0	...
Cocoa preparations.....	cwt.	80,954	70,425	-13	+90	...
Non-metalliferous mining products.....	tons	72,928	80,042	+10	-15	63
China clay.....	tons	42,849	45,711	+7	-9	51
Nonferrous metalliferous ores.....	tons	17,746	522	-97	-27	90
Cotton waste.....	cwt.	3,702	63,513	+1,616	-64	283
Wool, raw and waste.....	1,000 lbs.	5,874	13,636	+132	-21	75
Silk, raw and waste.....	1,000 lbs.	2,964	7,599	+156	-26	86
Seeds and nuts for oil.....	tons	2,956	2,126	-28	-47	160
Hides and skins.....	cwt.	17,956	36,649	+104	-53	194
Paper-making materials.....	tons	925	9,298	+905 <sup>a</sup>	-45	151
China.....	cwt.	6,046	11,410	+89	-24	82
Other earthenware.....	cwt.	32,427	35,931	+11	-18	68
Iron and steel.....	tons	1,035	10,482	+913 <sup>a</sup>	-52	187
Aluminum and aluminum alloys.....	cwt.	2,707	54,599	+1,917	-33	106
Brass and other alloys of copper.....	cwt.	1,036	52,965	+5,012	-83	712
Tin blocks, ingots, bars, slabs, etc.....	tons	190	2,924	+1,439	-1	40
Total machinery.....	cwt.	52,860	85,793	+62	-52	187
Textile machinery.....	cwt.	23,700	17,802	-25	-27	90
Cotton yarns.....	1,000 lbs.	440	196	-45	+10	...
Cotton woven piece goods.....	1,000 sq. yds.	5,944	4,788	-20	-7	48
Lace net.....	1,000 sq. yds.	2,629	2,076	-21	-39	126
Wool tops.....	1,000 lbs.	109	378	+247	-39	126
Woolen carded yarns.....	1,000 lbs.	14	10	-29	+14	...
Worsted combed yarns.....	1,000 lbs.	46	250	+443	-30	97
Other woven woollen tissues.....	1,000 sq. yds.	2,233	3,908	+75	-22	77
Other woven worsted tissues.....	1,000 sq. yds.	1,535	2,222	+45	-11	55
Carpets, carpeting, rugs.....	1,000 sq. yds.	397	146	-63	+12	...
Artificial silk yarn.....	1,000 lbs.	376	78	-79	+24	...
Linen and hemp piece goods.....	1,000 sq. yds.	5,819	9,898	+70	-29	94
Linen and hemp thread.....	cwt.	289	234	-19	-27	88
Damask table linen.....	cwt.	2,699	4,344	+61	-37	119
Handkerchiefs of linen.....	dozen	81,183	156,466	+93 <sup>b</sup>	-40	130
Jute piece goods.....	1,000 sq. yds.	4,524	5,093	+12	-25	84
Oilskins, etc.....	number	9,267	17,882	+93	-32	103
Men's and boys' overcoats.....	number	8,362	5,802	-31	-21	75
Wool hose.....	doz. prs.	84,937	123,845	+46 <sup>b</sup>	-23	79
Boots, booties, shoes.....	doz. prs.	8,383	17,015	+103	-24	81
Paper and cardboard.....	cwt.	20,447	32,354	+58	-29	94
Motor cars.....	number	8,285	6,005	-28	-9	52
Tractors.....	number	7,876	2,015	-74	-45	151
Motorcycles, tricycles.....	number	6,122	4,558	-26	-2	41
Cycles.....	number	6,123	17,054	+178 <sup>a</sup>	-24	81
Books and printed matter.....	cwt.	12,726	20,512	+61	-23	79
Floor coverings.....	1,000 sq. yds.	2,494	793	-68	-41	134
Rubber, crepe, and latex.....	centals	40,601	34,125	-16	+35	...

Source: *Accounts relating to Trade and Navigation of the United Kingdom*: II—Exports (Produce and Manufactures of the United Kingdom); III—Exports of Imported Merchandise.

<sup>a</sup> The 1948 quantity was lower than that for 1947 in these cases, with the result that the percentage increases in quantity between 1947 and 1950 were as follows: paper-making materials, 368; iron and steel, 75; cycles, 43.

<sup>b</sup> The 1947 quantity was so much higher than that for 1948 in these cases that the 1950 quantity shows a percentage decrease from 1947, instead of an increase, as follows: handkerchiefs of linen, 10; wool hose, 23.

a marked rise, which has continued as a result of the increased demand for raw materials occasioned by the American defense program.

A graphic picture of the trade of the entire sterling area with the dollar area is presented in Chart 4. The improvement shown here in 1950 is spec-

tacular, especially after the start of the Korean war.

### Demand for Particular Commodities

Now that we have surveyed the overall changes which took place in the trade of Britain and the sterling area with the United States and Canada

Table IV. United Kingdom Exports to Canada, by Quantity,  
January-June, 1948 and 1950

Commodity	Unit	1948	1950	Percent change in quantity	Percent change in dollar price	Percent quan- tity increase needed to maintain average trend
Spirits.....	1,000 pf. gals.	332	410	+23	-13	60
Cocoa preparations.....	cwt.	5,342	37,146	+595	-48	165
Biscuits.....	cwt.	5,874	12,669	+116	-22	76
Coal.....	tons	45,864	192,546	+320	-15	63
Other non-metalliferous mining products.....	tons	19,044	16,258	-15	+18	...
Wool, raw and waste.....	1,000 lbs.	2,361	2,165	-8	+70	...
Silk, raw and waste.....	1,000 lbs.	3,793	996	-74	-30	97
Pottery, glass, asbestos.....	cwt.	407,993	447,596	+10	-15	63
Cement.....	tons	471	17,401	+3,594	-68	331
Iron and steel.....	tons	10,076	76,823	+662	-48	165
Aluminum and aluminum alloys.....	cwt.	2,168	9,580	+342 <sup>a</sup>	+38	...
Total machinery.....	cwt.	126,740	225,521	+78	-32	103
Cranes, lifts, etc.....	cwt.	5,760	6,864	+19	-5	45
Generators, motors, and parts.....	cwt.	23,300	22,215	-5	-35	112
Food preparation machinery.....	cwt.	3,240	4,841	+49	-3	42
Internal combustion engines.....	cwt.	5,970	6,717	+13	-1	1
Machine tools.....	cwt.	4,980	26,272	+428	-15	63
Office machinery.....	cwt.	1,160	1,442	+24	-5	45
Printing machinery.....	cwt.	5,760	8,428	+46	-32	103
Refrigerating machinery.....	cwt.	1,300	6,386	+391	-20	73
Textile and sewing machinery.....	cwt.	21,840	20,990	-4	+1	...
Cotton yarns.....	1,000 lbs.	2,049	1,377	-33	-14	60
Cotton woven piece goods.....	1,000 sq. yds.	12,647	9,974	-21	-31	100
Lace net.....	1,000 sq. yds.	705	441	-37	-28	91
Household textiles and handkerchiefs of cotton.....	cwt.	5,789	2,529	-56	+9	...
Wool tops.....	1,000 lbs.	8,104	6,851	-15	-6	47
Woollen carded yarns.....	1,000 lbs.	220	85	-61	-31	100
Worsted combed yarns.....	1,000 lbs.	1,075	473	-66	-15	63
Other woven woollen tissues.....	1,000 sq. yds.	7,667	4,807	-37	-24	82
Other woven worsted tissues.....	1,000 sq. yds.	3,828	3,709	-3	-13	60
Carpets, carpeting, rugs.....	1,000 sq. yds.	802	704	-12	-15	63
Artificial silk yarn.....	1,000 lbs.	2,280	1,118	-51	-32	103
Artificial silk lace.....	1,000 lbs.	73	117	+60	-33	106
Other artificial silk tissues.....	1,000 sq. yds.	4,744	2,182	-54	-29	94
Cordage, cables, rope.....	cwt.	9,671	26,574	+175	-43	142
Linen and hemp piece goods.....	1,000 sq. yds.	602	954	+58	-38	122
Linen and hemp thread.....	cwt.	762	1,030	+35	-19	70
Damask table linen.....	cwt.	1,128	952	-16	-36	116
Handkerchiefs of linen.....	dozen	76,917	114,470	+49 <sup>a</sup>	-36	116
Jute piece goods.....	1,000 sq. yds.	1,387	2,275	+64	-11	55
Oilskins, etc.....	number	25,737	14,185	-45 <sup>a</sup>	-17	66
Underwear of cotton.....	dozen	93,626	106,805	+14	-4	44
Wool hose.....	doz. prs.	158,489	167,936	+6	-35	112
Boots, booties, shoes.....	doz. prs.	6,985	12,113	+73	-24	81
Dyestuffs.....	cwt.	2,921	5,582	+91	-39	126
Paper and cardboard.....	cwt.	10,354	15,185	+47	-21	75
Railroad axles, tires, etc.....	tons	3,855	4,042	+15	-15	63
Motor cars and chassis.....	number	3,972	38,748	+876	-19	70
Tractors.....	number	887	7,160	+707	-15	63
Motorcycles, tricycles.....	number	1,570	4,437	+183	-9	52
Cycles.....	number	13,300	21,729	+63	-30	97
Cycle parts.....	cwt.	3,663	6,934	+89	-31	100
Books and printed matter.....	cwt.	5,343	8,717	+63	-35	112
Floor coverings.....	1,000 sq. yds.	2,276	2,106	-7	-28	91

Source: *Accounts relating to Trade and Navigation of the United Kingdom: II—Exports (Produce and Manufactures of the United Kingdom); III—Exports of Imported Merchandise.*

<sup>a</sup> The 1948 quantity appears to have been unusually low in these cases. Compared with 1947 the 1950 quantity shows a decrease instead of an increase in aluminum and handkerchiefs of linen. The decreases between 1947 and 1950 were as follows: aluminum, 72; handkerchiefs of linen, 52; oilskins, 71.

Following devaluation, it may be of interest to take a look at what happened to the trade in some specific groups of commodities. Table III gives

the facts regarding British exports to the United States, and Table IV shows exports to Canada.

Examination of these tables reveals

some results which we might expect from the upward trend in exports and the price declines brought about by devaluation. It reveals some evidences of elasticity of demand and some evidences of inelasticity.<sup>5</sup> But, in addition, it shows some results that cannot be explained in terms of elasticity.

For example, British exports of several commodities fell off despite a cut in prices, notably nonferrous metal-liferous ores, seeds and nuts for oil, textile machinery, cotton woven piece goods, lace net, linen and hemp thread, men's and boys' overcoats, motor cars, tractors, motorcycles, and floor coverings to the United States, and almost all cotton, wool, and silk textile products, generators, damask table linen, oilskins, and floor coverings to Canada. The behavior of the textile items is probably explicable on the basis of the increasing home demand for these products during the period, coupled with the textile industry's inability to expand its productive capacity to fill the orders it could have obtained. The decline in the unprecedented postwar exports of English motor cars to the United States was to have been expected, once the American industry could catch up with the backlog of orders which had accumulated as a result of the war. Persons familiar with the markets for the other items will

<sup>5</sup> Demand is relatively elastic if price cuts bring about a more than proportional increase in quantities sold, thus increasing total proceeds. It is relatively inelastic if price cuts bring about a less than proportional increase in quantities sold, and thus decrease total proceeds. Demand for a substantial proportion of British exports to the dollar area would have to be elastic for the price cuts made possible by devaluation of the pound to narrow the dollar gap.

perhaps be able to explain their perverse behavior also.

Some indication of the relative elasticity of North American demand for the rest of the commodities listed can be obtained in the following manner. To maintain the 1946-48 trend of real exports to North America, shown in Chart 2, would require an average increase of 38 percent in quantity of exports. To continue this trend after devaluation, an additional increase in quantity would be necessary to offset the reduction in the dollar prices of British goods in American markets. A 44 percent increase would be necessary to offset a 30 percent drop in price, a 25 percent increase to offset a 20 percent price decline, and so on. The total increase in quantity of exports essential to maintain the postwar trend and offset price cuts is given for each commodity in the last column of Tables III and IV. Where the increase in exports was markedly greater than this figure, we shall have some evidence for inferring some elasticity in the American and Canadian demand for the commodity. Where the increase in exports was markedly less than this figure, we shall have some evidence for inferring some inelasticity in demand. Since changes in supply conditions within the United Kingdom might account for a part of the changes, however, inferences with regard to demand elasticity will be checked against what can be ascertained about supply conditions.

### Products with Elastic Demand

The commodity exports to the United States that showed the greatest apparent elasticity were: cotton waste,



paper-making materials, aluminum, copper alloys, tin products, and worsted combed yarns. Of somewhat lesser elasticity were: raw wool, raw silk, wool tops, and shoes. Production of most of these commodities increased in Britain during the period but not enough to account for the marked increases in exports. Special demand factors in the United States could also account for part of the increases, but it seems a reasonable inference that at least a portion of the demand for these products in the United States can be accounted for on grounds of elasticity. In all these cases the increase in exports to the United States was much greater than the increase in British exports to other countries taken as a whole.

One export to Canada whose increase between 1948 and 1950 was clearly not due to elasticity of demand is coal. Exports of this commodity since the war have been much lower than before the war because of the British industry's inability to produce a surplus above home needs, rather than because of the price element. In fact, there have been complaints in Europe that the British were charging an unfairly high price for coal in European markets while maintaining a low price at home.

Exports to Canada which have increased largely because of a substitution of British for American products as a result of the Canadian restrictions on imports from the United States, noted above, are iron and steel, machine tools, motor cars, tractors, and motorcycles. Thus the only increases in exports to Canada which seem to have

been occasioned predominantly by elasticity of demand are: cocoa preparations, biscuits, cement, refrigerating machinery, and cordage. In the case of cocoa preparations, the increase in production of the one kind of such preparations for which data are available — chocolate and sugar confectionery — amounted to only 40 percent, about the same as the increase in exports of cocoa preparations to all countries taken as a whole, whereas the export increase to Canada was 595 percent. Thus there is considerable evidence of demand elasticity in Canada for this product. Evidently the cocoa preparations which were sold in the United States were a different kind of product, since their average price rose, instead of falling, after devaluation.<sup>6</sup>

The production of biscuits rose only 24 percent in Great Britain, compared with an increase of 116 percent both in total exports and in exports to Canada. The increase in the production of cement was only moderate. Increases in the production of refrigerating machinery for export were great enough to account for perhaps as much as half of the increased exports to Canada but the fact that the increase in exports to Canada was much greater than to other countries substantiates the argument that elasticity of demand accounted for much of the increase. Production data are not readily available on cordage.

Information on physical volume of

<sup>6</sup> All price changes shown in the tables represent average prices for each category of commodity, not prices of identical commodities in each year. The latter are not readily available.

exports to the United States and Canada of certain other commodities is not available. The increase in the value of these exports was so great, however, between the 1948 period and 1950 that it seems reasonable to infer some increase in quantity and hence in the elasticity of demand for them also. The percentage increases in the value of some of these items are as follows: oils, 313; animals not for food, 145; manufactures of wood, 126; miscellaneous food, 100; leather goods, 77; toys, 76; cutlery et cetera (which includes moving picture films), 65; and electrical apparatus, 65.

The demand in the United States seems to have been rather inelastic for china clay and other non-metalliferous mining products, hides and skins, earthenware, machinery, damask table linen, and jute piece goods. In Canada the demand appears inelastic for pottery, printing machinery, linen and hemp products, cotton underwear, wool hose, and railroad axles. But the apparent inelasticity with respect to the textile items may have been caused by the high home demand and impediments in the way of expansion mentioned above.

The items not discussed in any of the preceding categories may be regarded as within a range close to unitary elasticity of demand,<sup>7</sup> or, in the case of some of the items mentioned in the footnotes to the tables, as commodities whose 1948 quantities of exports are sufficiently at variance with their 1947

quantities to render unwarranted any generalizations with regard to the normal movement of their exports.

The exports to the United States with relatively elastic demand comprise approximately 10 percent of the total value of British exports to this country. If all the exports to Canada with apparent elasticity are counted, including those purchases which consisted predominantly of substitutions for American goods kept out of Canada by import restrictions, about 15 percent of the value of British exports to Canada would show relative elasticity. This limited elasticity of demand is counterbalanced by the relative inelasticity of United States demand for 18 percent of the products it imports from Great Britain and of Canadian demand for some 13 percent of its imports from Britain.

### Changes in Imports

Data on changes in imports into Britain from North America during the period under review are given in Tables V and VI. Devaluation of the pound should not be given undue credit for accomplishing the cuts shown, because the government has been exercising strong direct controls in restricting imports of various kinds throughout the postwar period. However, devaluation would naturally act as an added incentive to persuade importers to shift to non-dollar sources, wherever possible, to avoid the sterling price increase brought about by devaluation. We should therefore expect the greatest cuts to be made in the importation of commodities available outside North America, and the demand to be most

<sup>7</sup> In this case a cut in price would be accompanied by an exactly proportional increase in the quantity sold, resulting in no change in total proceeds.

Table V. United Kingdom Imports from the United States, by Quantity, January-June, 1948 and 1950

Commodity	Unit	1948	1950	Percent change in quantity	Percent change in dollar price	Percent quantity cut needed to break even
Cotton.....	1,000 centals	1,745	2,017	+16	+48	33
Tobacco (U.S. and Canada combined).....	1,000 lbs.	46,060	31,575	-31	+22	18
Wood and timber:						
Softwood, sawn.....	standards	55,877	1,758	-97 <sup>b</sup>	+24	20
Hardwood, sawn.....	1,000 cu. ft.	1,944	902	-54	+58	37
Veneers.....	1,000 cwt.	44	16	-64	-10	...
Machinery.....	1,000 cwt.	671	361	-46 <sup>c</sup>	+198	67
Petroleum products:						
Gas oil.....	1,000 gals.	79,917	21,974	-73	+7	7
Lubricating oil.....	1,000 gals.	42,913	48,471	+13	-14	...
Gasoline.....	1,000 gals.	119,802	29,871	-75	+45	31
Nonferrous metals and manufactures:						
Copper.....	tons	26,944	30,088	+12	+22	18
Lead.....	tons	7,288	56	-99 <sup>b</sup>	+12	11
Zinc or spelter.....	tons	41,668	10,000	-76 <sup>b</sup>	+20	17
Iron and steel.....	tons	65,952	35,787	-46	+104	51
Dairy produce:						
Cheese.....	1,000 cwt.	19	...	-100	...	...
Milk, powdered, unsweetened.....	1,000 cwt.	2	...	-100	...	...
Plastic materials.....	1,000 cwt.	112	50	-55 <sup>b</sup>	+152	61
Sulphur.....	1,000 tons	192	245	+28	+16	13
Carbon blacks.....	1,000 cwt.	456	505	+11	+35	26
Meat.....	1,000 cwt.	7	2	-71	+196	66
Salmon.....	cwt.	7,076	...	-100	...	...
Raisins.....	cwt.	11	352,067	...	-40	...
Molasses.....	1,000 cwt.	2,889	3,712	+28	-49	...
Rosin.....	1,000 cwt.	188	148	-21	-9	...
Mineral crude petroleum.....	1,000 gals.	12,251	10,518	-14 <sup>c</sup>	+26	20
Fruit juice.....	gals.	422,355	1,112	-99	-7	...
Wool, raw and waste, and rags.....	1,000 lbs.	2,708	27	-99	+207	68
Hides and skins.....	cwt.	14,040	14,069	...	-13	...
Paper-making materials.....	tons	13,122	1,148	-91	+37	27
Rubber, raw, and like materials.....	1,000 centals	27,958	23,902	-15 <sup>c</sup>	+53	35
Bristles.....	cwt.	89	161	+81	+14	13
Mineral phosphates of lime.....	tons	15,868	40,652	+156 <sup>d</sup>	-1	...
Hair, raw.....	cwt.	44,504	46,815	+5	+32	24
Seeds for sowing.....	cwt.	54,286	9,573	-82	+43	30
Plywood.....	cu. ft.	309,063	1	-100	...	...
Cotton woven piece goods.....	1,000 sq. yds.	22,926	68	-99 <sup>b</sup>	...	...
Paper and cardboard.....	1,000 cwt.	286	129	-55 <sup>c</sup>	+18	15
Books and other printed matter.....	1,000 cwt.	56	35	-37 <sup>b</sup>	+20	17

Source: *Accounts relating to Trade and Navigation of the United Kingdom: I—Imports.*<sup>a</sup> To compute a percentage change here would be without significance. The 1948 quantity was abnormally low. In 1947 nearly 500,000 cwt. were imported.<sup>b</sup> The 1948 quantity was much higher than that for 1947 in these cases. The percentage decreases in quantity in 1950, compared with 1947, were: softwood, sawn, 95; lead, 98; zinc or spelter, 48; plastic materials, 38; cotton woven piece goods, 98; books and other printed matter, 12.<sup>c</sup> The 1948 quantity was so much higher than that for 1947 in these cases that the 1950 quantity shows an increase, instead of a decrease, compared with 1947, as follows: machinery, 21; mineral crude petroleum, 70; rubber, 40; paper and cardboard, 111.<sup>d</sup> The 1948 quantity was lower than that for 1947. The percentage increase from 1947 to 1950 was 82.

inelastic for commodities not available in any reasonable quantity outside the United States and Canada.

Accordingly it is not surprising that the increases in prices of cotton, copper, sulphur, carbon blacks, bristles, and raw hair, imported by Britain from the United States, and grain, cheese, and asbestos from Canada failed to

prevent the importation of greater amounts of these commodities to meet the growing needs of British industry — and of consumption, in the case of grain and cheese.

Substantial cuts, of a magnitude much greater than enough to overcome the effects of price increases, were made in the importation from the United

Table VI. United Kingdom Imports from Canada,  
by Quantity, January-June, 1948 and 1950

Commodity	Unit	1948	1950	Percent change in quantity	Percent change in dollar price	Percent quan- tity cut needed to break even
Grain and flour (U.S. and Canada combined).....	1,000 cwt.	40,119	38,671	-4	+40	29
Meat.....	1,000 cwt.	2,049	586	-71	+40	29
Dairy produce:						
Cheese.....	1,000 cwt.	44	48	+9	+25	20
Eggs, in shell.....	1,000 doz.	25,906	128	-99	+30	23
Eggs, liquid or frozen.....	1,000 cwt.	38	...	-100	...	...
Eggs, dried whole (U.S. and Canada combined).....	1,000 cwt.	50	17	-66 <sup>b</sup>	...	...
Fresh fruits and vegetables.....	cwt.	107	687,321	...	...	...
Salmon.....	cwt.	56,326	43,995	-22	+23	19
Asbestos.....	tons	12,920	18,182	+41	+44	30
Iron ore and concentrates.....	tons	235,285	5,525	-98 <sup>b</sup>	+15	13
Nickel ore.....	tons	12,980	10,594	-18	+80	45
Zinc ore and concentrates.....	tons	...	7,492	...	...	...
Wood and timber:						
Softwood, sawn.....	standards	135,513	23,603	-83	+9	8
Softwood, planed or dressed.....	standards	12,106	288	-98	+12	11
Hardwood, hewn.....	1,000 cu. ft.	694	661	-5	+9	8
Hardwood, sawn.....	1,000 cu. ft.	1,054	458	-57 <sup>b</sup>	+120	55
Boxboards.....	standards	5,059	...	-100	...	...
Pitprops.....	piled cu. fath.	62,290	2,936	-95	-5	...
Sleepers.....	standards	20,982	2,710	-87 <sup>b</sup>	-3	...
Veneers.....	1,000 cwt.	63	4	-94	-28	...
Flax.....	tons	237	253	+7	+1	1
Linseed oil.....	tons	2,638	...	-100	...	...
Hides and skins.....	cwt.	4,735	28,859	+509	-86	...
Paper-making materials.....	tons	94,648	35,197	-63 <sup>b</sup>	+18	15
Seeds for sowing.....	cwt.	121,604	3,805	-97 <sup>b</sup>	+103	51
Iron and steel and manufactures.....	tons	40,873	22,031	-46	+12	11
Nonferrous metals and manufactures:						
Aluminum.....	1,000 cwt.	1,414	1,083	-23 <sup>c</sup>	+57	36
Copper.....	tons	26,819	29,926	+12	+20	17
Lead.....	tons	18,409	9,171	-50	+18	15
Zinc or spelter.....	tons	22,800	13,384	-41	+29	23
Machinery.....	1,000 cwt.	88	26	-70	+28	21
Paper and cardboard.....	1,000 cwt.	1,195	152	-87	+38	28
Books and other printed matter.....	1,000 cwt.	9	1	-89	+174	63
Plastic materials.....	1,000 cwt.	30	39	+30 <sup>d</sup>	+22	18

Source: *Accounts relating to Trade and Navigation of the United Kingdom: I—Imports.*<sup>a</sup> To compute a percentage change here would be without significance. The 1948 quantity was abnormally low. In 1947 over 2,000,000 cwt. were imported.<sup>b</sup> The 1948 quantity was much higher than that for 1947 in these cases. The percentage decreases in quantity in 1950, compared with 1947, were: eggs, dried and whole, 45; iron ore and concentrates, 96; hardwood, sawn, 38; sleepers, 82; paper-making materials, 14; seeds for sowing, 95.<sup>c</sup> The 1948 quantity was so much higher than that for 1947 in this case that the 1950 quantity shows an increase of 215 percent over 1947.<sup>d</sup> Compared with 1947, the percentage change is negligible.

States of tobacco, wood and timber, petroleum, lead, zinc, wool, paper-making materials, and seeds. Similar cuts were made in the importation from Canada of meat, eggs, iron ore, softwood, seeds, iron and steel, lead, zinc, machinery, paper and printed matter.

The cut in imports of nickel ore from Canada was not sufficient to overcome the price increases. Also, there were

substantial increases in imports of mineral phosphates of lime from the United States and hides and skins from Canada, despite a fall in price of both commodities.

### Conclusion

To sum up the principal findings of this article, the evidence suggests that the postwar trend of British exports to the dollar area would probably have



continued upward through 1950 without devaluation of the pound. The recession in the United States was the major cause of the falling off in British exports to this continent in 1949 and the upturn, when it came, would have reversed this cyclical movement in any event. Devaluation may have been made inevitable by the wave of speculation against the pound which took place, but it was not an essential step in the process of revival of British exports to dollar markets.

The demand for British exports to the United States and Canada does not exhibit a great enough degree of elasticity for devaluation of the British pound to be considered a desirable expedient to bring about an increase in the proceeds from exports to this area. In the case of some products, a cut in their price would seem to be an excellent device for increasing their sales in the American market. In the case of some products a cut in price seems to produce results that are worse than futile, at least under present domestic supply-and-demand conditions within the United Kingdom. It would therefore seem that attention should be directed to reducing the price and increasing the export of those British

products for which the demand in this continent seems to be relatively elastic, rather than to applying such an indiscriminate stimulus as currency depreciation.

The British government has ample means to slash imports of specific commodities through its import licensing powers. This method of curtailing imports from the dollar area is preferable to devaluation because the latter operates to raise the price of imports which are essential to the functioning of the economy as well as to those which can be dispensed with or obtained in non-dollar markets.

For all these reasons it would seem to be folly for any responsible authority to consider further devaluation of the pound as a means of correcting the present disparity between British exports to North America and imports therefrom. This is especially true under the present conditions, when the fundamental cause of the increasing dollar gap has been the American and British rearmament programs, which have absorbed increasing quantities of expensive imports and withdrawn final products in Britain from the British export market.

# The High Cost of Dying

ROBERT I. MEHR

*Professor of Economics, University of Illinois*

and

ALICE G. KIRKPATRICK

*Instructor in Business Law, University of Illinois*

IN THESE DAYS of mounting inflation much is being said and written about the high cost of living, but few of us ever stop to think about the high cost of dying. The subject of death is avoided in many family circles as if a feeling of immortality existed. It seems almost that there is some sort of superstition attached to death, planning. This is unfortunate because there is so much that a little financial planning can do to reduce the cost of dying. The economics of death clearly indicates that a few hours spent now in estate planning can develop savings equal to the gross earnings of several years. Estate planning pays off at a rate far in excess of the value of the time and effort it consumes. The luxury of ignoring the financial aspects of death is a very expensive one, indeed. Man's effort to create an estate should not be sacrificed by his negligence in failing to protect it.

## What Does It Cost to Die?

Before any concrete estate plans can be developed it is necessary first to determine the cost of dying, assuming that the estate remains as presently constituted. This is done through a process called estate analysis. An estate analysis involves a hypothetical liquidation of the estate in order to reveal the cost of such an operation. It assumes that death occurs at the

time of the analysis. It takes the estate through probate and indicates where the shrinkage will take place. The shrinkage in the estate measures the costs of death. These costs will usually take the form of funeral expenses, estate administration expenses, death taxes, and losses resulting from the forced liquidation of assets necessary to provide cash to pay these costs.

When a man prepares a budget he does so on the basis of his *net* income. He readily recognizes the difference between *gross* income and *net* income. A \$10,000-a-year man knows that he is a \$10,000-a-year man in name only. He is quite aware of the fact that his income will shrink through the payment of taxes and business expenses. But a man often considers his estate in terms of its gross value only. He seems to feel that he will leave it intact for his heirs. The gross value of an estate, however, like gross income is a mirage to be seen but not enjoyed by those who receive it. Only the net value of an estate is available for distribution.

Let us select a few examples from the records of probate courts to illustrate in a real way the cost of death of some of our leading citizens of the past few years. On the morning of April 12, 1945, the value of the Franklin D. Roosevelt estate was \$2,111,673. Before the end of that day this magnificent

estate had lost more than one-fourth of its value. The death of the former president cost his estate \$629,983. Included in this \$629,983 are the following items: debts, \$19,221; administration expenses, \$36,619; attorneys' fees, \$75,000; executor's fees, \$99,494; New York estate tax, \$46,598; and Federal estate tax, \$353,051. This proportion of shrinkage is rather low for such a large estate. Aside from the fact that this estate had been well planned, the reason for the low shrinkage is explained by the presence of \$920,115 of assets in his estate which he had inherited from his mother less than five years before his death. Since these assets had been taxed recently in his mother's estate at the time of transfer, the Franklin D. Roosevelt estate received a \$447,858 estate tax credit. If this \$920,115 had been transferred to the Franklin D. Roosevelt estate more than five years prior to his death, the shrinkage of his estate would have exceeded 50 percent.

Mrs. Andrew Carnegie, widow of the steel manufacturer and New York philanthropist, died on June 24, 1946. The gross value of her estate was \$20,620,340. The shrinkage arising out of death expenses amounted to \$13,163,899. This left less than one-third of the original estate. State and Federal estate taxes alone took \$11,651,663. Lawyers' fees and administration expenses totaled \$1,445,532. Debts amounted to \$76,704. If \$2,515,000 had not been left in charitable bequests, the shrinkage would have been even greater.

Benjamin Carpenter, Jr., formerly Professor of Physics at the University of Illinois, died September 24, 1947, at

the age of 51. His gross estate included assets valued at \$188,077, a more moderate amount. After payment of debts amounting to \$2,566, administration expenses of \$1,332, executor's fees of \$4,500, Illinois inheritance taxes of \$1,846, and Federal estate taxes amounting to \$26,992, there was only \$150,841 left for distribution to his heirs. The shrinkage of this estate was 20 percent.

These examples are of large estates. Relatively small estates also are exposed to liquidation losses. Although there will be no Federal estate tax to pay from an estate of \$25,000, there will be funeral expenses and administration costs. Estimates have been made for the total costs of estate settlement and on the average they run about \$2,500 on property estates of \$25,000. Add to this the cost of the last illness and the funeral, and the estate shrinkage probably will reach at least \$5,000 — a shrinkage of 20 percent. This figure assumes a measure of estate liquidity providing funds to offset the cost of dying. If assets have to be sacrificed to pay cash demands on the estate, the estate shrinkage will be even greater. If the estate is composed principally of life insurance proceeds, the settlement cost will be small indeed, since life insurance is not subject to probate and administration expenses.

Aside from funeral expenses, administration costs, taxes, and liquidation losses, two other factors can cause shrinkage in an estate which contains general property holdings: (1) the loss of the superior investment management ability of the estate owner, and (2) the necessity for a changed

philosophy of investment when the estate owner dies. When an estate passes from the owner through the executor or administrator to heirs, it loses the benefit of the management of the original owner, whose knowledge of the peculiarities of the estate and whose management skill, particularly in the case of the estate containing business interests, may have been the major factor in making it profitable.

The beneficiary of an estate usually is interested primarily in income, not capital appreciation, as the estate owner may have been; consequently, estate property that is ideal for an active businessman may not be ideal for his widow. Few businessmen, if possessed of foresight enabling them to know they would die within a year, would leave the character of their estates unaltered. Such changes, made by the executor or the beneficiaries, often involve losses which further add to the cost of dying.

### Reducing the Cost of Dying

After reading about the high cost of dying, one might well ask: What can be done about these costs? How can they be reduced? The answer, of course, is estate planning. To accept the certainty of death and to plan for it intelligently assure one of the proper disposition of his assets upon his death and the maximum benefit to his heirs.

The high cost of dying attributed to funeral expenses in many cases may be greatly reduced. When a man dies his family feels that it wants to give him the best funeral possible. It is the last occasion upon which they are able to show openly the extent of their love

and affection. Often new and expensive clothing is purchased, fancy casket cloths, expensive flowers, ornate caskets, and too elaborate headstones. The preservative features of all caskets are much the same. The price, however, varies according to the finish, polish, scroll work, and so on. As for headstones, there is almost no limit in price variation. Much of the useless expense of a funeral can be eliminated by careful planning before death. Every family head should sit down with his wife and calmly talk over his wishes with regard to his funeral and its cost. Most men prefer to leave their estates to their wives and families rather than to the families of the funeral director and the merchandisers of caskets and headstones.

To avoid the high cost of dying due to estate settlement costs and death taxes, the estate owner also should sit down with his lawyer, insurance man, accountant, and proposed executor and plan his estate. The sole purpose of planning an estate, however, should not be to avoid the payment of taxes but to accomplish the purposes that the owner wishes. Nevertheless, if taxes can be reduced without defeating the owner's purpose, full use should be made of all tax-saving devices. In many cases, tax planning is necessary in order to carry out the purposes of estate planning. There are several legal ways in which taxes may be avoided. Some of these will soon become apparent.

Regardless of the degree of tax and estate planning there always will be some costs that cannot be eliminated. Therefore, an important consideration in estate planning is that of providing



liquidity in order to assure against a forced liquidation of preferred estate assets to meet needs for cash. Debts, administration costs, and taxes must be paid in cash in relatively short order, usually within a year, or they begin to incur interest costs. Forced liquidation often results in heavy losses to the estate. The amount of the losses, if any, depends upon the economic conditions at the time of the death of the estate owner, and the nature of the estate. Sometimes such losses are as high as 40 percent of the value of the estate. This needless waste of assets may seriously impair the plans of the testator for his heirs. The real problem in estate distribution is not what you leave for your heirs but what is left for them.

If death comes in a period of prosperity, the problem of forced liquidation of the average estate assets (other than business interests) may not be difficult. Market prices for estate property are high, assuring adequate liquidation values for the major portion of estate property. If death comes in a period of depression, the forced liquidation problem becomes a great one. Since no one knows what the economic conditions will be at his death, he must be prepared for the worst. He should arrange his estate in order to provide enough cash to take care of all the estimated cash demands.

Liquidity, however, costs money, for as a general rule liquid assets earn less than non-liquid assets. The majority of estate owners are reluctant to sacrifice substantial yield for liquidity. Perhaps the best way to arrange for liquidity in most estates is to use an asset that is

certain to increase in cash value upon the death of the owner rather than to depend upon assets that are subject to possible liquidation losses. The only asset that increases in cash value at the death of its owner is life insurance. Therefore, the most logical method of meeting estate obligations is through life insurance. Under a life insurance plan, the same contingency (death) which creates the estate liability will create an offsetting estate asset.

Not only does the use of life insurance to pay estate obligations avoid liquidation losses in estate settlement, but it also reduces the cost of estate transfer. It lessens the task of estate settlement, thus reducing the cost of administration. The immediate cash provided by the insurance enables the executors to take advantage of all cash discounts for prompt payment. Also insurance makes it practical for the insured to maintain a less liquid but higher-income-producing estate. Finally, it enables the insured to pay his estate liabilities with "fractional" dollars.

This last statement probably needs some explanation. For example, with a single-premium life insurance policy, a man age 50 can pay a prospective estate clearance bill for just a little more than 60c on the dollar. If the insured is age 40, about 50c on the dollar will pay the bill. If the insured is age 60, then a single-premium life insurance policy to pay a clearance bill of \$10,000 could be purchased with \$7,000. In that case, the clearance bill is settled for 70c on the dollar.

These estimates do not take into account the loss of interest resulting from the tie-up of these lump sums in

life insurance, but when it is considered that the interest earned would have been subject to income tax at perhaps high rates, only a small *net* amount of interest income is sacrificed, and the insured would have to live a good many years to lose in interest an amount equal to the discount he receives on his tax bill through life insurance.

One problem, however, relating to the use of life insurance to meet death costs merits careful consideration. In a large estate, the insurance dollars which are considered a part of the estate will increase the tax bill. Therefore, a man age 50 who buys single-premium life insurance for 60c on the dollar will find that at his death the additional 40c will be taxed at the highest rate, perhaps as much as 40 percent in a large estate. The net result is a gain of only 24c per dollar through the purchase of life insurance. Nevertheless, 84c estate settlement dollars purchased for 60c are a sound financial bargain. Very few estates, however, carry as much as a 40 percent tax liability. To do so, the estate would have to be extremely large. The best solution to the tax problem resulting from the additional life insurance is to arrange the coverage in such a way that the life insurance will not be taxed in the estate of the deceased. This can be done if the estate beneficiary has independent funds of her own. Under present tax laws, if the beneficiary pays all the premiums on the life insurance from her own funds, and the insured has no control whatever over the policy, the proceeds of the policy will not be included in the estate of the deceased. In this way, estate clearance

cost can be paid with tax-free dollars — dollars which are free from both income and estate taxes.

Under the provisions of some state inheritance tax laws the proceeds of life insurance policies which are payable to named beneficiaries at the death of the insured are not includible in the taxable estate of the insured, regardless of amount, ownership, or premium-payment. Therefore your state law should be checked to determine whether or not your life insurance is afforded this protection.

The primary wish of the head of a family ordinarily is to provide sufficiently for the care and welfare of his children until they are able to care for themselves, and for the support of his widow for the remainder of her life. It is not enough to provide a gross estate which seemingly would cover such needs. If the estate is to pass through probate or administration, some time may elapse before it is settled. Provision must be made, therefore, for the family, not only after the settlement but also for the period between the owner's death and the settlement of his estate. Life insurance again is the ideal asset for this income readjustment period. Life insurance proceeds made payable directly to the widow do not pass through probate and are paid to the heirs immediately upon the death of the insured.

Maintaining estate liquidity and providing funds for interim operations are not the sole objectives of estate planning. Such planning also has as an objective estate conservation in other directions toward the end of providing the largest net estate possible but still

keeping within the purposes desired by the creator. The estate planning team usually should consist of an attorney, a trust officer, an accountant, and a life insurance agent. The attorney draws up any necessary legal instruments such as wills, trust agreements, and business interest buy-and-sell agreements. The trust officer handles problems dealing with the general estate. He usually is well versed in investment analysis and can make valuable recommendations concerning desirable estate assets. The accountant helps with tax problems, and with the development and maintenance of satisfactory records so necessary when tax problems are involved. He also helps with problems relating to the valuation of assets. The life insurance agent handles the insurance problems of the estate. He also usually is the one who motivates the testator to plan his estate.

Personally owned and managed business interests often present a difficult problem in estate planning. This is true whether this interest is in the form of a sole proprietorship, a partnership, or a close corporation. The major share of the return from this type of business interest usually is derived from the personal service and managerial ability of its owner rather than from pure interest return on the capital invested by him. Thus, if the owner's wife has no business experience or knowledge, and if he has no children qualified and interested in taking over the business, its goodwill value stands a good chance of being destroyed. All that will remain is the liquidation value of the assets—that is, unless the estate plans include

arrangements for conserving the value of the business interest.

The most satisfactory method of protecting the value of a business interest seems to be a method whereby binding arrangements are made during the lifetime of the owner for its sale after his death to a responsible party or parties at a fair price. If this interest is a partnership or a close corporation, a ready buyer is available in the persons of the surviving partners or stockholders. A buy-and-sell agreement may be executed whereby the surviving partners or stockholders obligate themselves to buy the interests of the deceased partner or stockholder from his estate at the agreed price. These agreements usually are not very valuable unless there are funds to back them up. Therefore the better estate plans call for a life insurance arrangement to finance the buy-and-sell agreement. Under this plan, each partner or stockholder will insure the lives of the others so that upon a death life insurance proceeds will be available to the survivors to purchase the interests of the deceased. Aside from furnishing a ready market for the full value of the interest, this arrangement has the added advantages of providing the liquidity necessary to enable the estate to meet cash demands. The advantages of such a plan to the surviving stockholders or partners are obvious. If it is impossible to arrange a buy-and-sell agreement for the business interest, then estate plans must provide for the liquid funds necessary to continue the business for a limited time after the owner's death to prevent a probable loss caused by sale in a relatively short time.

Estate conservation requires the consideration and appraisal of the various avenues for reducing death costs through division of ownership, avoidance of successive death taxes, complete use of tax exemptions, protection against creditors, and, finally, proper integration of the will, trusts, and life insurance settlement options.

In avoiding taxes and estate shrinkage through the use of a division of ownership, it must be remembered that in order to save in taxes you must give up the control over your property. If you retain control you are considered to be the owner, and consequently the property will be taxed as a part of your estate. A division of ownership may be achieved through outright gifts or through gifts in trust. If the owner of a large estate has no particular reason for retaining control over all of it, he can effect a considerable saving by making a gift of some of his property during his lifetime. Gifts will result in estate and income tax savings and lower probate costs. Income taxes will be saved, because gifts remove property income from the higher tax bracket of the transferor to the lower tax bracket of the transferee. Probate and administration costs will be reduced, since there will be less property to transfer at death.

Lifetime gifts made without strings attached save in estate tax so long as the gift is not made in contemplation of death. If a gift is made within three years before death, such a gift is presumed to be in contemplation of death. The burden of proof of a living motive is on the estate of the deceased. Gifts made earlier than the three-year period

preceding death are not questioned unless the tax collector can prove conclusively that they were made in contemplation of death. Gift tax rates are only  $\frac{3}{4}$  of the estate tax rate. Also there is a \$30,000 lifetime gift-tax exemption which can be doubled if the gift is considered as being made jointly by husband and wife. In addition, there is an annual gift-tax exemption of \$3,000 per donee. This exemption is also doubled if the donor takes advantage of the marital deduction.

The following examples will illustrate the extent of tax savings available through the use of gifts as a vehicle for property transfer. A \$100,000 gift from a \$1,000,000 estate would reduce the estate tax by about \$37,705. It would also save about \$5,600 in probate and administration expenses. The gift tax on the \$100,000 would be only about \$7,000, even if all the gift were made in one year. If the gift were made over a period of years, the savings would be even greater, because of the \$3,000 annual exemption. If a \$25,000 gift is made from a \$100,000 estate, there would be no gift tax. The estate tax savings would be about \$3,750.

Successive death taxes also may be saved by the proper use of trusts, life insurance settlement options, and common-disaster clauses in naming beneficiaries. A trust can be used to transfer property to successive beneficiaries with the payment of only one tax. Thus, if A transfers assets in trust for the lifetime benefit of his son, and for the benefit of his grandchildren upon his son's death, no estate tax will accrue at the time of the death of his son. Moreover, if A makes the transfer in a proper



manner during his own life, there will be no taxes at A's death. Life insurance settlement options protect against successive death taxes by providing for a contingent beneficiary should the primary beneficiary fail to outlive the guaranteed income period. The transfer from a primary to a contingent beneficiary involves no costs whatsoever. Common-disaster clauses direct how the proceeds are to be paid in the event that husband and wife are killed in the same accident. This prevents the estate from being passed to one spouse, then taxed, and on passing shortly thereafter to his or her beneficiaries taxed once more.

A few examples of estate tax planning should be of interest. Assume an estate of \$200,000 belonging to a married man with two children. If he willed the \$200,000 to his wife as a life estate the Federal estate tax upon his death would be \$31,500. Upon his widow's death there would be no additional estate tax. (A life estate is an arrangement whereby the beneficiary has the right to enjoy the income from the property as long as he or she lives. Upon the death of the beneficiary, the property goes to a secondary beneficiary—in this case, the children.) If the \$200,000 is left to his wife outright, the Federal estate tax upon his death would be only \$4,800 since he is able to take advantage of the marital deduction. Upon the death of his widow, the estate tax would be \$30,136, assuming, of course, that her inheritance remains intact throughout the rest of her life. But if he should leave \$100,000 out-

right to his wife by will and \$100,000 as a life estate, the Federal estate tax would be \$4,800 at his death and \$4,044 after the death of his widow. Still another arrangement would be to leave a \$75,000 life estate to his wife by will and another \$75,000 outright. He could then give each of his two children a \$25,000 annuity. In this case, the Federal estate tax upon his death would be \$1,050. Upon his widow's death, the estate would be taxed another \$1,050. By taking advantage of the marital deduction, the gifts can be made tax-free since each spouse is entitled to make a minimum tax-free gift of \$33,000. The net effect of each of these plans is as follows: In the first plan, the wife retained \$168,500 of the estate and passed it intact to the children. In the second plan, the wife retained \$195,200 and passed \$165,064 to the children. In the third plan, the wife retained \$195,200 of the estate and passed \$191,156 to the children. In the final plan, the wife retained \$148,950 of the estate and passed to the children \$147,900 which, when added to the \$50,000 tax-free gift, enabled the children to retain \$197,900 of the estate. These few illustrations indicate what a little tax planning can do for estate protection.

### A Specific Case

As an example of an actual case of estate planning, take the situation of John and Mary Abernathy,<sup>1</sup> a couple in their late 30's and parents of 3 small children. An analysis of their property shows:

<sup>1</sup> Names fictitious; case real.

*John's Property*

$\frac{1}{2}$ interest in home in joint tenancy.....	\$15,000
Cash.....	\$80,000
Stock and bonds.....	\$100,000
Business interest in a partnership.....	\$120,000
Life insurance on his own life.....	\$130,000
Life insurance on life of his father.....	\$105,000

Because of the large amount of cash<sup>2</sup> and insurance in the estate, no additional provisions need be made for funds to pay funeral expenses, administration expenses, or taxes. However, because of the size of the prospective estates, it seemed advisable to avoid the transfer of property by either John or Mary to the other at death.

For instance, if John should die before Mary, leaving her all of his property, his Federal estate taxes would amount to about \$26,700 and the state inheritance tax to \$16,000, a total of \$42,700 in death taxes. If Mary then died, leaving all of her property to the three children, the taxes would amount to \$13,800 state inheritance, and \$120,100 Federal estate tax, making a total of \$133,900. The total taxes of both estates would be over \$176,000.

If the property were to pass directly to the children, about \$75,000 would be saved. Although the taxes on John's estate would be larger because there would be no marital deduction available, his total taxes would not exceed \$78,000. However, the taxes on Mary's estate would be reduced to about

*Mary's Property*

$\frac{1}{2}$ interest in home in joint tenancy.....	\$15,000
Household furnishings and personal property.....	\$10,000
Business interest in a partnership.....	\$30,000
Future inheritance of land valued at.....	\$150,000

\$22,000, making a combined total of \$100,000 as compared with a total of \$176,000 where the property went first to Mary.

In order to further reduce taxes and other death costs, it was suggested that an irrevocable lifetime trust be set up for the children, consisting of \$10,000 cash and a life insurance policy on the life of each child to be paid up in 10 years, the trust to be of such a nature that other property could be added to it. It was also suggested that John transfer his interest in the home or in any bonds held in joint tenancy to Mary. John's will was then made to set up a trust for the balance of his property, the income of which was to be paid to Mary during her life; at her death the income or principal was to be paid to the children under the terms of the living trust. John's trustees were given the power to acquire any interest in the partnership business. Mary's will provided for the proceeds of her partnership interest to go to the trustees of the living trust. In the event that Mary should predecease John, she left the house and its furnishings to John for life and at his death to their children.

Although it may be pleasant enough to live expensively, certainly nothing can be gained by dying that way.

<sup>2</sup> The strong cash position of this estate may be due to funds received from a sale of property and now awaiting reinvestment, or to the need for a high degree of liquidity to meet tax obligations as they mature.

# Economic Aid: A Casualty of the Cold War?

GEORGE KLEINER

*Associate Professor of Economics, University of Illinois*

THE FOREIGN POLICY of the United States has come to rely increasingly on military preparedness. To us, this may seem to be an unavoidable expedient, at least in the short run. To many underdeveloped countries, however, where the majority of the people continue to hover on the verge of starvation and where capital improvements are so desperately needed, the relatively feeble interest we have recently shown in their economic development—in the face of billions devoted to defense—raises doubts as to the sincerity of our protestations in favor of world economic betterment.

Almost everywhere in the non-Communist world, there is an undercurrent of fear that we are not succeeding in winning Asia (or whatever of Asia there is left to be won) to our side. There is increasing fear that we are placing too much reliance on the military approach and growing awareness that the military approach alone will not be enough. Nor is this danger confined to Asia. Even among Western European countries there is the risk that virtually sole reliance on military strength, with all the economic and political problems that such a policy will entail, will lose for us many of the gains we have made there in the past few years.

## Economic Betterment as the Goal of Peoples

The war and postwar years have witnessed a growing determination on

the part of peoples the world over to increase their living standards and, to that end, to improve their productive capacity. Compared with this overriding objective, everything else seems to them of minor importance. There is a determination to sweep away those political, institutional, or legal arrangements that have hampered economic development; and to the extent that we attempt to preserve them on grounds of temporary military expediency, we shall do so only at the cost of longer-run gains. So strong is this desire for economic betterment and so low are the current living standards, that to most of the Asiatic and Near-Eastern peoples the choice between alignment with the United States (or Great Britain) and alignment with the Soviet Union does not seem a very real or meaningful one; rather, the choice seems to them to lie between alternative arrangements or plans for economic development. Unless we become aware of this and provide the proper incentives, we shall not win these peoples over to our side lastingly.

The military approach, alone, is generally one of preserving or defending what one has. The trouble in Asia and the Near East, however, is primarily one of not having anything to defend. With starvation rampant, disease and illiteracy widespread, with caste systems that stultify, and with nothing to look forward to except an endless repetition of present hardships, freedom in our sense of the term means very little.

If we want the peoples of Asia, or even of Europe, to defend our way of life, we must first help them to secure enough of that way that they will feel they have some stake in it. To the rest of the world, the prolonged debate in the United States that has accompanied the relatively small appropriations for nondefense foreign aid, in the past year or so, while vast sums were being spent for defense, attests not so much to a limited budget and a desire to economize as to noncomprehension or denial of the needs of other countries. Many of our sincerest friends in foreign countries have insisted, in fact, that beyond a certain point additional expenditures would gain us more if they were devoted to long-run economic aid than to defense.

Economic aid itself would be a mere palliative, however, a short-run stop-gap, unless it were part and parcel of a positive plan for long-run economic betterment. Unfortunately, some of the aid we have provided since the end of the war has reaped relatively little in the way of permanent improvement. In the case of the European countries some of this was probably unavoidable. Crises in supply and distribution arose, largely as a result of war-induced dislocations, and we stepped in with gifts or loans to avert disaster. For the underdeveloped countries of Asia and the Near East, however, and even for the low-income countries of Western Europe such as Greece and Italy, what is needed is a positive, long-run program designed to increase their ability to provide for themselves the living standards to which they aspire.

### Obstacles to Economic Development

To formulate plans for economic development of the underdeveloped countries, it is essential first that the principal obstacles to such development be singled out. The over-all obstacle, of course, is that when productive capacity is very low such an overwhelming proportion of a country's output must be consumed that very little can be devoted to facilities that will ultimately increase the capacity to produce. This is another way of saying that poor countries cannot afford to save and invest. And it is the paucity of investment, the extremely low level of capital per worker, which largely explains differences in productivity among countries. Even before the war, labor in the United States had, on the average, four times as much power to work with as labor in the Western European countries, and many more times as much as labor in the underdeveloped countries. Moreover that difference, instead of being narrowed by a catching-up process in the rest of the world, has of course been widened considerably since prewar years, partly because of war destruction and postwar reconstruction in many foreign countries, partly because of the phenomenally high level of investment in the United States. Even since the end of the reconstruction phase, say 1948, the difference in investment rates has been maintained or even widened. Whereas net investment in the United States amounted to about \$200 or \$250 per capita between 1948 and 1950, net investment in Western Europe amounted to about \$45 to \$50 per capita, and to only



about \$3 per capita in the underdeveloped countries, in the same years.

An additional problem is the fact that much of the investment that must come first, in the underdeveloped countries, is what is often referred to as "public overhead capital": transportation and power facilities, education, sanitation, and the other social institutions of a modern, productive economy, and, in the case of some of these countries, the movement of population to those areas where resources are available. All this requires a tremendous amount of investment. It is the sort of investment, moreover, which will not contribute much directly to productivity, but that is essential before other productive undertakings can be launched. We in the United States went through much of this in the mid-19th century, many other countries such as Canada and Australia somewhat later, and in most of these countries foreign investment played an important role.

In the early postwar years, many persons and groups in the United States expressed the hope and the expectation that private American capital would move out to the far corners of the world, thus supplying the means of productive improvement. That expectation has not been fulfilled. Such American capital as has been invested in the underdeveloped countries has been mainly in oil and, to a much more limited extent, in the mining of other resources. This investment, though helpful to a limited extent, does not provide the sort of development that most of these countries need so desperately. It is undertaken, naturally

enough, with a view to producing a particular product for the world market, and the benefits that accrue to the receiving country are generally limited.

There are a number of reasons, other than the nature of the capital needs, for the failure of American capital to seek investment in the underdeveloped countries. First of all, there is a host of factors that we lump together as socio-political risks: the danger of discriminations of various sorts against foreign investors; the danger of expropriation; general political uncertainty; and fear of war. Our State Department has attempted to minimize these risks by negotiating agreements with foreign governments pertaining to their treatment of our investors, but it is doubtful that these will increase the willingness to invest to any great extent.

In addition, there is the "transfer" risk, the risk that capital and even earnings may be blocked because of a shortage of convertible foreign exchange. In most countries, the desire to expand output through increased investment is likely to lead to imbalance in their international payments. In many instances, on the other hand, the difficulties of transfer have stemmed from the creditor country; a recession or a sudden reduction in the flow of international investment may render the creditor currency scarce in the foreign exchange markets. Foreign exchange controls have therefore become widespread, and frequently they limit the transferability of capital and earnings in order to conserve as much as possible for essential imports.

But these are not the only obstacles to private international investment. An

additional and very important one is that in spite of the fact that the "need" for investment in the underdeveloped countries is so great, the profitability of such investment in the private profits sense is frequently not large at all. The low level of production and income limits the size of the market and thus frequently makes for a scale of operations well below optimum. Lack of education, of sanitation, and of division of labor, reduces the efficiency of the labor force, and makes for absenteeism and high unit costs in spite of low wage rates. Lack of financial institutions, of distribution channels, and of all the other economic institutions we associate with a modern developed economy has the same effect. True, new investment would produce these "external economies"; but one private investor, moving in alone, cannot afford high current costs in his own enterprise though he may realize that his own investment will help reduce the costs of enterprises that will be set up later.

In addition to limited income and markets, in most of the underdeveloped countries the distribution of that income is extremely unequal. This limits the market still further. There is a marked reluctance even on the part of domestic business people to plough their profits back into productive investment. The profitability of investment is not determined merely by "need," in the sense of an absence of an adequate supply of capital goods. Lack of effective demand because of the extremely unequal distribution of income is of paramount importance. True, an increase in investment would help to change the distribution of income itself, thus in a

sense providing its own market. To the individual investors who first take the plunge, however, the gains in this way are almost bound to be extremely small; they must largely proceed on the assumption that the market is fixed and will not be expanded materially by the effect of their own investment on the over-all distribution of income.

Considering all the obstacles, therefore, it is most unlikely that private foreign capital would be forthcoming in a steady stream, even under stable international conditions. In the face of current international tensions, the unlikelihood is all the greater. Some capital, perhaps, will continue to flow into Latin America. But even in Latin America, and most certainly in Asia and the Near East, private developmental capital in adequate amounts should not be looked to as a solution.

### Need for United States Government Aid

The upshot, therefore, is that unless we provide governmental assistance, the productive capacity and therefore the living standards of many countries will remain abysmally low. Even governmental assistance, however, will provide no solution unless we see to it that such assistance fits in with a positive program for economic betterment in the recipient countries. Such a program would call for, among other things, the building up of the public overhead capital — the development of transportation and power facilities, education, health, a labor force, in the modern sense, willing and increasingly able to work for wages and to buy back from the market the required consumer

goods. The benefits in terms of higher productivity would necessarily appear only slowly. This means that the recipient countries must not be too impatient and that we as the givers should not expect the unattainable.

Equally important is the fact that unless such an economic program is accompanied by a political and social program conducive to development, it will necessarily fail. This implies willingness on the part of the recipient country to undergo change, and also willingness on our part to take a chance on that change. In many instances (Greece, Italy, some of the Near-Eastern countries), those persons or groups in political and economic control have resisted change even after we had shown a disposition to promote it. In other instances we have shied away from any change whatsoever, fearing, perhaps, that we might lose control in the resultant political flux. Unless we are willing to accept such change, however, we shall surely lose the possibility of long-run gain. We shall lose the immediate approbation of millions of people the world over who at one time looked upon us as the rebel that made good and was therefore willing to stand

up for independence and democracy everywhere. Moreover, economic betterment cannot be attained in countries where caste systems prevent the development of education and social mobility and where great inequalities of wealth and income hamper the growth of investment for lack of an internal market.

It is for these reasons that the recent trend in our foreign policy, moving more and more towards sole reliance on the military approach, is in danger of losing for us many actual or potential friends. To the countries of Western Europe, just recovered from a devastating war, defense expenditures are bringing back the old problems: scarcities, reduced living standards, inflation, and balance-of-payments crises. To the underdeveloped countries, particularly in Asia and the Near East, we are failing to provide leadership for economic development and capital to aid in that development. More reliance on long-range economic assistance would not only assure our present friends; it would help to win over some that are now on the fence and perhaps even some that are now on the other side.

## Books Reviewed

*Statistics for Economics and Business.*

By Donald W. Paden and E. F. Lindquist (New York: McGraw-Hill Book Company, Inc., 1951, pp. ix, 276. \$4.00)

Statistics textbooks range from introductory outline manuals to encyclopedic tomes covering practically all the techniques that have ever been devised. Of the concise statistics textbooks, this is one of the best I have ever had the privilege of examining. The authors have attempted to restrict themselves to those basic concepts and techniques that in their opinion are fundamental and most frequently used. This, in their opinion, is to be preferred to "a superficial acquaintance with many." The approach used is a critical one, with emphasis on the development in the student of a cognizance of the inherent limitations of statistical techniques and an appreciation of the fact that statistical methods are an aid and not a substitute for common sense and logic. No one who has taught the elementary course in statistics could quarrel with these stated objectives, and on the whole the authors have succeeded fairly well in achieving them.

After a brief introduction to elementary concepts, the subjects treated in the text are index numbers, the frequency distribution and its measurement, the normal curve, sampling errors, time series analysis, and correlation.

Under index numbers, the methods of weighted relatives and weighted aggregates are the only ones described, with a brief mention of quantity in-

dexes, the use of indexes as deflators, and base shifting of index numbers. The discussion of the frequency distribution includes the usual measures of central tendency and variation. Sampling error is treated more fully with a discussion of the standard error of the mean, levels of confidence, confidence intervals, various sampling techniques, biases, and the null hypothesis. The entire subject of time series is covered in 35 pages. In that space, the authors cover seasonal variation measurement by the ratio-to-moving-average and link-relative methods, the least squares and semi-average methods of trend fitting, and the isolation of cyclical-irregular movements in a time series. Last, correlation analysis including sampling errors in "r" are discussed. All the foregoing subjects are covered in 265 pages.

The authors are eminently successful in making their exposition nonmathematical. This should prove very helpful to the student with a minimum of mathematical training. Such students sometimes are overwhelmed by the introduction of even the most elementary mathematical treatment. The avoidance of mathematical symbolism should prove extremely helpful to these students without seriously diminishing the benefits which the mathematically proficient students can derive from this text. However, it leaves something to be desired by the intelligent student who would want more than the inadequate explanation and justification that the nonmathematical approach necessarily involves. It is, therefore, suggested



that a liberal use of references to other statistical works might be included to satisfy the inquisitive students with regard to the whys and wherefores of statistical methods.

When a textbook is published in which a limited number of techniques are described, there is always room for criticism of the selection of tools. With this in mind, I question, for example, the inclusion of the link-relative method of measuring seasonal variations—a technique that has rather generally been discarded in favor of the ratio-to-moving-average methods, while at the same time the important subject of moving seasonals is not even mentioned. Also, for a textbook intended for “economics and business,” far too little space is devoted to time series analysis and index numbers to give business students a sufficient background in these subjects.

It is intended by the authors that the textbook be used in conjunction with the manual they specifically prepared for this text. The questions and problems presented in the manual are designed to set the student to thinking and reasoning for himself. Thus, after reading a given chapter in the text, the student is asked to work out for himself the various problems and questions in the manual relating to that chapter. This, in the authors' words, constitutes the Socratic method to develop a reasoned understanding of statistical method.

The authors feel that most effective use of the textbook and the manual can be made by dispensing almost entirely with classroom lectures. Instead, class time would be devoted to super-

vised work and quiz periods on exercises in the manual. If the authors' approach is successfully employed, the student will be provided with a working knowledge of statistics more indelibly impressed on his mind than could be achieved by rote memorization of a heterogeneous mass of formulae which are promptly forgotten after the final examination. However, I question whether the text presentation is adequate for the basic understanding essential to solve the manual problems without extensive class discussion. Or will the students with this scant background be tempted to resort to means other than those intended by the authors to complete their assignments? However, the authors have apparently used this method of teaching with success.

JOHN M. FIRESTONE  
Bureau of Labor Statistics

*Manpower Resources and Utilization Principles of Working Force Analysis.* By A. J. Jaffe and Charles D. Stewart (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1951, pp. xii, 532. \$6.50)

This is a stimulating and informative analysis which could have been considerably better if the authors had confined themselves to their primary objective: “a study of the United States working force—what it is, what factors have influenced it in the past and what pressures are shaping it today, and how it is related to other aspects of our society.” But the temptation to pursue attractive bypaths, such as the problems of underdeveloped and semi-industrialized countries, was apparently

too great. As a result, the main theme suffers from unduly cursory treatment in important aspects, while the analysis of the sub-themes is generally and inevitably superficial.

Nevertheless, the volume has much to recommend it. The authors display a healthy appreciation of the breadth of their problem. As they put it, "working force analysis emerges from the entire social, economic, political, and cultural milieu; it does not emerge from any one aspect of a culture, but is a function of all the aspects." In keeping with this approach, they study various characteristics (age, sex, color, marital and dependency status, urban-rural, and occupation) of the American labor force in terms of the economic and technological development of the country, the growth and changes in population, the impact of immigration, and the attitudes of the people toward working and toward different occupations.

Perhaps even more important, the authors recognize that the presentation of statistical and other empirical facts by themselves is not enough. In order to give the facts meaning, it is necessary to analyze them within a theoretical framework. The theoretical discussions, notably those pertaining to the pattern of industrialization and the growth of population, are limited in scope, but the authors introduce them modestly and with an awareness of their deficiencies. As a result, they not only stimulate the reader but also greatly enrich the analysis. One of the significant conclusions thus drawn is that non-demographic factors (notably industrialization) have a much greater effect upon the composition of the labor

force than demographic factors (the personal characteristics, such as age, sex, marital status, etc., that are largely independent of economic organization).

Another valuable attribute of the volume is to be found in its detailed discussion of the problems of measurement of labor force, population, and related variables. Approximately the first quarter of the book is devoted to the statistical procedures of the Bureau of the Census (the chief collector of labor force data) and, at frequent appropriate points elsewhere, the limitations of the data are effectively noted. Particular attention is paid to the varying results arising from the use of the "labor force" and "gainful worker" concepts. Since both authors have had many years of direct and intimate experience with governmental labor force surveys, they bring to the discussion a realistic quality which is often lacking among users of Census data.

Unfortunately, the weaknesses of the volume extend beyond the unevenness in quality caused by the frequent references to the labor forces of foreign and, particularly, underdeveloped countries. Organizationally, the volume is often confusing. Chapters do not always follow each other in a logical or integrated fashion, so that the reader frequently has to turn back to recapture the train of thought. Much of this could have been avoided by restricting the foreign materials to the appendixes. But a more basic reason for the confusion seems to lie in the failure of the authors to have in mind a clearly defined audience. Was the book written for college students, policy makers in government and industry, technical

personnel, or foreign specialists? One cannot be sure.

On the substantive side, more or less serious omissions are noted, as well as inadequate treatment of data. For example, the problem of multiple job holders is overlooked both in the discussion on measurement and on population utilization. The chapter on immigration contains only the scantiest reference to the influence of national-culture factors on the composition of the labor force. The two chapters on social attitudes have no discussion at all of the significance of racial and religious discrimination for manpower resources or utilization. The absence of any data on local labor markets and labor mobility significantly limits the range and effectiveness of the analysis of manpower utilization. Little or no reference is made to such important sources of labor force data as the reports of the Bureau of Old Age and Survivors' Insurance or to such illuminating special studies as those by Carter Goodrich, MacLaurin and Myers, Reynolds and Shister, Woytinsky, and others.

Notwithstanding its limitations, the volume should prove enlightening to the uninitiated student of the American labor force. And certain of its theoretical sections, as well as some of the foreign materials, may be of interest to the more technically equipped reader.

MILTON DERBER

Institute of Labor and Industrial Relations

*The Nature and Tax Treatment of Capital Gains and Losses.* By Lawrence H. Seltzer (New York:

National Bureau of Economic Research, 1951, pp. xxii, 554. \$7.50)

Determination of a logical tax treatment of capital gains encounters some of the most difficult questions in the entire field of income taxation. Unlike other taxable income, capital gains — increases in the value of assets held — do not take the form of a *flow* of wealth to the taxpayer. As a consequence, it has been widely argued that capital gains should not be included in taxable income at all — a point of view traditionally accepted in the British Commonwealth nations. Others, while accepting the argument that some capital gains should be taxable, maintain that those gains which are manifestations of changes in price levels and interest rates in no sense constitute income.

In addition, the problem has been complicated by the fact that the accrual of capital gains, like the growing of vegetables in one's backyard, constitutes an addition to the value of a person's wealth without an exchange transaction being involved. Because of the difficulties of taxing such accruals, taxation of gains has been postponed till realization. Since the latter is nonrecurrent, and gains accruing over many years may be realized in one year, the irregular income problem, with progressive tax rates, is encountered with particular severity. Furthermore, unlike most other income, the taxpayer has the choice of time of realization, and so can manipulate realization of losses and gains in such a way as to minimize tax liability. Additional trouble has arisen out of the use of a definition of realization which allows



many gains — especially on assets held until death — to escape tax completely. Finally, the use of the realization basis provides a strong deterrent to the sale of property on which gains have accrued, and artificially spurs the realization of losses, to the detriment of proper functioning of the markets for securities and capital assets. In the face of these substantial problems, Congress has turned from one make-shift, jerry-built approach to capital gains taxation to another; the relatively liberal treatment has further complicated the issue by encouraging persons to convert regular income into the form of capital gains.

The literature on capital gains has been substantial over the years. But it has been characterized by more heat than light, and by serious confusion between inherent features of the problem of taxing capital gains and the consequences of the present treatment. For example, many of the objectionable results for which capital gains taxation is charged are actually due merely to the particular definition of realization employed in the law. The present volume, by Professor Seltzer of Wayne University, prepared under the auspices of the National Bureau of Economic Research, is designed to throw more light on the problem, in part by careful analysis of the issues, and in part by study of the statistical data available in regard to the operation and effects of the portion of the income tax applying to capital gains.

The first four chapters are analytical; legal origins of British and American tax treatment of capital gains are noted, and the economic nature of the

gains is considered at some length. To Dr. Seltzer, the basic characteristic of capital gains — from the standpoint of economic analysis — is their unexpected character, as distinguished from the anticipated nature of ordinary profits, but he recognizes the fact that usual capital gains are, in practice, partly anticipated. He traces the sources of capital gains, as a background for consideration of the various arguments in favor of and against including them in taxable income. While policy judgments and recommendations are avoided throughout the book, the weight of the argument is allowed to rest clearly on the side of taxing capital gains.

The second portion of the book, Chapters 5-8, presents the results of empirical study of the application of the tax to capital gains in the past thirty years, and of the effects of the tax on investor decisions and government revenues. The primary data were obtained largely from a study of statistics gathered from Federal income tax returns for the period; tables presenting this material are included in 80 pages of Appendix to the volume.

The major conclusions reached from the empirical study can be summarized briefly:

1. In the period from 1917 to 1946, net capital gains shown on tax returns totaled about \$51 billion and net capital losses about \$35 billion, leaving \$16 billion gains net. Actually, many capital gains were never legally realized for tax purposes.

2. High-income groups showed a better ratio of gains to losses than those in lower groups. Within income groups



there was a wide range of gain and loss experience among individuals.

3. Taxable capital gains fluctuated very widely from year to year, with consequent variation in government revenues. Only in the 1926-29 period did the tax on capital gains constitute a significant element—over 40 percent—in total income tax revenue. In recent years less than 5 percent of income tax revenue has come from this source.

4. The great bulk of capital gains (and losses) was derived from sale of common stock. Real estate was a minor source.

5. Capital gains constituted a major source of income for persons in high-income groups, although these groups received only a small portion of total capital gains.

6. Capital losses concentrated particularly in the middle-income groups; as a consequence, the limited deductibility of such losses particularly injured this group.

7. Some evidence of influence exerted by the tax treatment on time of realization of capital gains was obtained, especially in regard to higher-income groups. But the conclusion is reached that the tax treatment has been a minor factor in controlling realization, compared with other considerations. The study does not show the extent to which realization is avoided until death because of the tax.

In the third portion of the book, Chapters 9-11, the descriptive and analytical approach is resumed. Chapter 9

describes in detail the various means by which ordinary income is converted into capital gains for tax purposes. This chapter is to the reviewer the most interesting and enlightening of the entire book, and provides an excellent justification of the thesis that the line between capital gains and other income is a very tenuous and artificial one. Chapter 10 indicates foreign experience, with emphasis on the British Commonwealth procedure of excluding capital gains completely. The final chapter presents a thorough analysis of various alternative proposals to the capital gains problem, designed to attain equity of treatment, yet avoid artificial interference with transfers of securities and other property.

On the whole, the volume represents a useful contribution to an understanding of the problem and a background for further exploration. It is the best current reference for these purposes. The conclusions of the very extensive statistical work are not particularly surprising; in general, they merely support long-accepted hypotheses. Likewise, the analytical work is more noteworthy for clear assimilation of various conflicting arguments than for the breaking of new ground. The usefulness of the work is impaired somewhat by the fact that the presentation of the analysis—itself clear and penetrating—is clouded by the ponderous dullness characteristic of National Bureau publications. The book is not recommended for light week-end reading.

JOHN F. DUE

